

In search of alternatives

We are painfully conscious that Teacher Plus is mailed out in plastic covers. Despite our best intentions, we can't seem to find an envelope for mailing that will remain intact in all kinds of weather, keep the magazine dry in the rainy season, and is light enough to fall within our weight limit for the magazine. For the longest time, we used paper, and old subscribers will know that the magazine would often arrive tattered or wet. The postman would bring us the returns totally bereft of the covers, so we had no way of knowing which subscribers had not received their issues. In all, we could not find a way to avoid the plastic. Newer, recyclable materials are being introduced, but these are often expensive and for a small publication like Teacher Plus, not affordable. We feel like we are in a bind. Every time the team sits down to pack the magazine, we wonder how we might give up the plastic covers. Indeed, this is the kind of "wicked problem" that climate change forces us to find solutions for, on an everyday level. Ideas, anyone?



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the magazine for the contemporary teacher

TEACHER PLUS January 2023

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Richa Pandey

How can teachers come up with a strategy to engage children in the learning process, specifically with math? Math teaching lends itself to an inquiry-based approach which involves investigating a problem, making conjectures and arriving at a solution. In this approach, learners ask questions, explore their own curiosity and are able to connect their

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Cover Story

In the age of digital revolution, data is growing at a pace faster than we can think of and we all are contributing to it. Using this data to better understand human behavior and patterns is a challenge. In the education space the need to maintain data and analyze trends in a way that is useful to all stakeholders is very much a necessity. It is time schools embrace data as a culture – right from the decision-making process to gathering information and resources for the benefit of everyone. A school like any other organization is an evolving workplace that needs review and policy changes from time to time. This is where data regarding academics, teacher training and parent participation can be useful.

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Data literacy has never been as important as it is in today's digital world. Even if data was accessible, teachers are not aware how they can use it in their day-to-day lesson planning and instructional methods. Now, however, making use of information from various sources and deploying them carefully in the classroom must be an essential toolkit of the teacher. Here is an overview of data-driven decision making and how it can be used for analysis.

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Editor

Usha Raman

Editorial Team Nirmala M

Shalini B Sushma Rana

Layout & Graphics Rajendra Kumar S

Social Media Shruti Singhal

Circulation Srinivas N

RNI Publications Consultant

K Raghurama Raju

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Teacher Plus

A 15, Vikrampuri, Secunderabad 500 009. Telangana. India. Mobile: 8977942097 editorial@teacherplus.org www.teacherplus.org

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Cover: Data as a recipe for school improvement

Suraj Appukuttan is a Bengaluru based illustrator and graphic designer. His designs have been published in books, newspapers, magazines and also T-shirts. He can be reached at

< surajappukuttan@yahoo.co.in >.









Getting smart about data



ach time I pay at the counter of my neighbourhood grocery store, I'm asked for my mobile number. Ostensibly, it's to add loyalty points to my account, so that I can claim a discount at some point. But the intelligent grocery chain will also use it to add to the data on shopping behaviour – what items do I buy regularly, which brands do I favour, what quantities of this or that do I stock up on each month (or each week), how often do I visit the store? This is just one data-harvesting point. In so many of our daily interactions with different systems, we are literally, shedding data – about location, consumption, communication, entertainment, information-seeking, health, movement, and so much more.

Some of this data is gathered in direct ways, with consent and with the understanding that it is necessary to make our lives easier and the systems that serve us more efficient. But much – like that gathered as we swipe through apps on our phones – is picked up in more surreptitious and indirect ways.

Education has for long, even before the Internet, been a sphere where data was crucial, both at the aggregate level (how schools in general were functioning, what broad trends were seen in learning standards, resource allocation and use, movement of teachers and students across the system, etc.) and at the more granular level (how a student was performing across the year, the impact of different pedagogic styles, level of parental involvement in different schools). But now, with automation and electronic data gathering tools introducing new forms of measurement and the ability to analyze at scale, the possibilities (and perils) of datafication have reached a new level.

Across the world, there has been a growing conversation around a variety of issues related to data – issues of privacy, misuse and abuse, ownership and control, among others. Schools as institutions, and teachers as individuals, would do well to listen in, and possibly even participate, in these conversations, as many of the biggest harvesters of data in recent times have been companies that educators depend on to teach, to look for information, or to share resources. And then there are the EdTech firms and the many support services that schools increasingly use, from student records management to enterprise management systems, which are granted access to a range of data, almost always clearly linked to individual identities. The kinds of questions that need to be asked are: What are the implications of having all this data in the hands of private companies? What safeguards can be put in place to ensure that the data is not misused?

This issue will hopefully open up some of these much-needed conversations, and we hope you will take them on into your staffrooms and meetings, as the new year rolls around.

Here's wishing you all a healthy and happy 2023!

Usha Rawan

Learning math through inquiry

Richa Pandey





student who didn't appear for the test shouldn't be marked a zero as it would negatively affect the student as well as her entire group," said a nine-year-old in my mathematics classroom. The incident took place when my fourth graders were engaged in a brainstorming session.

I work in a private school based in Vijayawada, Andhra Pradesh, as a mathematics facilitator. My work involves engaging 8-13 year-olds and facilitating their learning through inquiry. Inquiry-based teaching is student centric and involves investigating a given problem, making conjectures, and arriving at a solution. It relies on triggering the learner's curiosity through thought-provoking questions.

Planning an inquiry-based session

My fourth grade learners had recently learnt symmetry and we were in the process of transitioning to the next unit. The next unit was part of statistics and included concepts like mean, median, and mode. 'Averages' as a concept is rich in terms of its practical applications ranging from average height, weight, age of a group to average salary of employees in an organization. There is no dearth of activities that one can design for this particular concept. Given that my school follows inquiry as an approach to teaching-learning, I planned the session involving extensive group discussion and brainstorming to initiate a conversation around the concept.

To ensure a smooth transition from symmetry (a concept in geometry) to averages (a concept in statistics), an exit test based on symmetry was conducted. Each learner was marked out of 20. They were then divided into four distinct groups.

On the day we planned to start learning averages, I shared the test results with the learners. Clear instructions were provided to the students to avoid any confusion. The learners had to sit in small circles according to their group numbers which were mentioned on their test papers. Each group was required to elect their group leader (through dialogue/negotiation/voting). The group leader was expected to analyze the performance of their entire group in the symmetry-based test. The leader had to represent the entire group in front of the facilitator.

Organizing an inquiry-based session

The first opening question for all the group leaders was, "How was your own performance in the test?" The leaders used different adjectives or phrases to describe their performance ranging from "excellent" to "I did well". The next opening question was: "How did your group perform?" The leaders were expected to use only words and no numbers to answer this question. Again, different phrases were used including "they did well", "they could have done better" and "they did well but could do better".

This guestion was extended further as leaders were asked to describe their group's performance using

numbers. As soon as this question was asked, one group leader started revealing the marks of different learners in the group. She was immediately reminded of the instruction that was given at the beginning of the activity, i.e., "the marks of different group members of your group should not be revealed to the other groups". She modified her response and said, "My group members did well but they could have done better." A similar response was given by the next group leader. They didn't know how to use numbers to describe the performance without revealing the scores of individual members of the

group.

The discussion took an interesting turn when the third group leader said, "My group performed well, no one scored less than 10 or more than 18." The fourth group leader immediately picked up this new way of explaining the performance of the learners and rushed back to confirm her group members' scores. She came back with more confidence and a more appropriate analysis of her group's performance. At the end of this round of discussion, I asked all the group members to explain their group's performance using the sentence, "In my group, no one scored less than or more than . Then I revealed to the learners that they just used a new concept called "range". Interestingly, this concept wouldn't be introduced at this point if not for the curious nature of the learners.

Extending an inquiry-based session

In the third round of discussions, group leaders were expected to describe their group's performance using only one number. Five minutes were given to all the groups to discuss and decide what that number should be. The groups had to come to a consensus about this number and each member in the group had a right to question the number selected by the group. After a good five minutes of discussion, all the leaders came back with a number that represented their group. This time, the responses were quite

> the highest score of the group to represent the group while the other group leader was not sure what that number could be. There were two groups that

diverse. One group leader wanted

had the same strategy, i.e., they wanted to "mix" the scores of all the group members. When asked

about the meaning of mixing, they showed me the number they had calculated on a piece of paper. It was the sum of all the scores in their group.

At this point, I asked all the groups, "Is it fair to choose the highest score of the group to represent the group's score?



The groups unanimously rejected the idea as it seemed unfair. On the same grounds they rejected the idea of using the lowest score to represent the group's score. They seemed to prefer the "mixing of scores" strategy. So, I asked all the groups to find the total score of their group. Group 1 had scored 65, Group 2 had scored 73, Group 3 had scored 93 and group 4 had scored 78.

Now, I asked all the groups a common question, "Which group in the class performed the best?" The groups were inclined to say Group 3 when the leader of the fourth group objected by saying that, "Group 3 has six members but my group has only five members. They have scored 93 out of 120 but we have scored 78 out of 100." This was the moment that any facilitator craves for. I couldn't stop smiling. Then I asked all of them to rethink the strategy and come up with a more fair way to represent the score of the group. Immediately one group leader said, "We can subtract 20 from the total score as well as obtained score for their group," (a common misconception about fractions). I asked her to think whether 5/10 was the same as (5-1)/(10-1). She was able to notice the problem. As I was convincing her to rethink her strategy, another student said "average". A different student said "percentage". Before I could take up any of these responses, it was time for their next class so I left them with their own questions to think about.

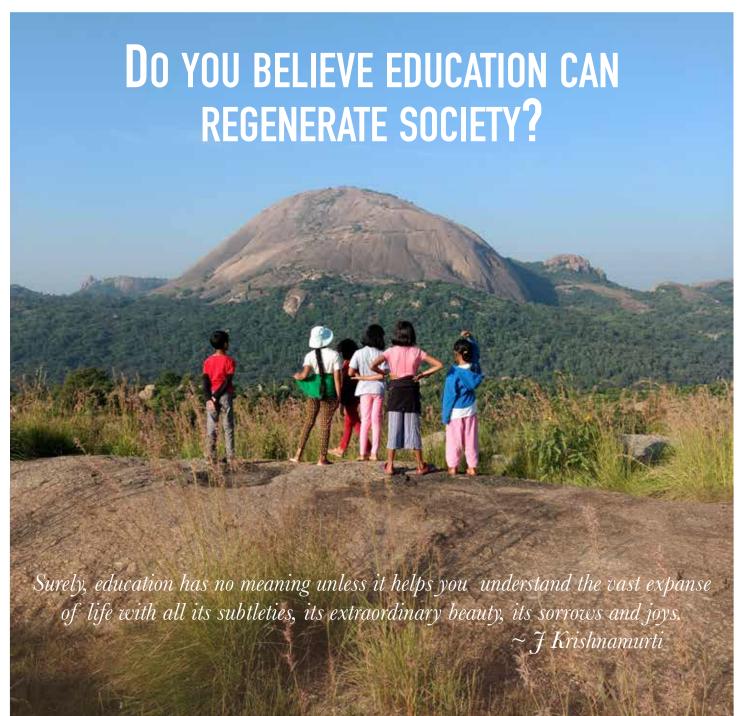
Problem + Solution = Another Problem

The next day we began the session by recalling what we had discussed previously. They reminded

me of averages and percentages as the possible strategies. Now, percentage has been discussed with this group of learners briefly in relation to decimals and fractions but this group doesn't know how to calculate percentage yet. They have never used average as a concept before. So, it was a surprise for me as well. But it gave me a good point for starting a conversation around mean. I asked them to share their total score among the group members equally and come up with a number. They followed.

By the end of the session, we were able to resolve the problem by finding the average score of each group. However, there was one more problem. Group 2 had six members but one of those members had not written the test. The group leader said, "She has just joined the school and it would be unfair to test her knowledge on the concept she hasn't learnt". All the groups agreed. The next question was, "Should we mark her zero?" The groups were confused. They didn't want to test her. They didn't want to give her zero. One member firmly said, "If we give her zero it would affect her negatively and would affect the group's score too." As the groups were brainstorming to solve this problem, the bell rang and they were left with yet another problem to think about before the next class.

The author is a mathematics facilitator at AIMEE International School, Vijayawada. She is interested in exploring different ways of making learning an active process for young learners. She can be reached at <ri>chapandey735@gmail.com>.



Centre For Learning (CFL) is a non-hierarchical teacher-run school, consisting of a small community of teachers, parents and students. We are interested in nurturing compassionate and sensitive human beings with global minds who wish to learn in a cooperative environment.

We invite applications from individuals interested in inquiry, who have specific skills to offer in teaching, administrative duties and hostel care. Applicants should be excited to live on a campus in a rural setting. If you are interested in working with us, please visit our website (https://cfl.in/working-at-cfl/) and follow the procedure outlined there.

Towards a data-rich school: thoughts and ideas

Amitava Nag

t is the test of times, it is the test of foresight, it is an age of vision, it is an age of blind reliance, it is an era of truth, it is an era of halves, it is an eon of revolution, it is an eon of stillness. It is a date with information, it is a tryst with knowledge. It is a phase of obesity; it is a phase of crisis.

It is, indeed, the best of times as it is also the worst.

Today is the age of digital revolution – a time

where without a doubt we have to accept that data is the new oil. Data leads to information and information drives us to the path of knowledge. We are in a digital mesh(es?)

where our social existence is inexplicably linked with our physical living, where our footprints in the virtual space are much more than the steps that we will ever take in our physical lives.

Collectively we have already produced a mammoth amount of data, and we are still making it grow at a frighteningly exponential rate. In such a dataobese world, using data contextually for a better understanding of human behaviour and pattern is a challenge. It is clear to all by now that without proper analysis and context to aid decision-making, collecting data has no value. Analyzing data helps to reveal trends, springs surprises and provides fodder for critical thinking. The need to maintain data in a 'smart' way for future reference is as much a necessity for educators as it is to stock market

analysts, financial advisers, medical practitioners, or sporting consultants.

Unfortunately, it is probably safe to conclude that among the several basic domains of existence, education is the one that has the poorest data climate. The aim of this article is not to find the reasons for this delay in embracing data into the decision-making thought process. Rather, this article will try to look at some of the different kinds of data that schools may collect and how information / knowledge may be garnered as a resource for the benefit of schools and their several stake holders. It is to be noted that in India, through the digital awareness at the



level revolutionizing the schools, with the National Education Policy and several other ongoing initiatives, a nation-wide data governance culture is slowly building up. While the individual school data at the national level through the governmental data reservoirs will calibrate the school's performance, this article also wishes to dig into the areas that concern the individual student of a school.

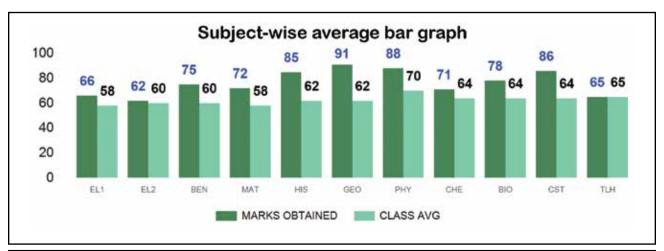
It is assumed that a school opting to embark on a digital journey has some sort of an ERP (Enterprise Resource Planning) system in place – either homegrown or readily available in the market.

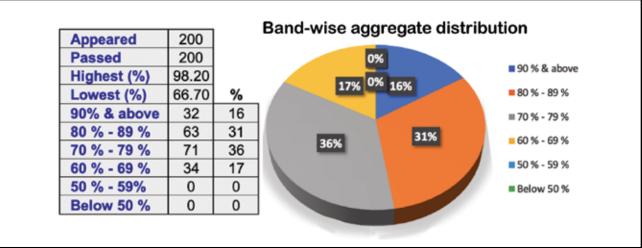
Academic assessment

The foremost and easiest (to envision) collection and interpretation of data is in tracking students' academic progress through the year. At the very basic level, examination-wise individual data needs to be captured for all the tests and examinations of the school across all the eligible classes and students. Not only does this data help the school heads to compare and match the performances of individuals,

this data when presented in an agreed format will generate the term-end Progress Report Card of a student as well.

With the proliferation of the digital in our daily lives, our need to be fed with instant information has been a constant urge. It is impractical for a school to try providing the parent with even a daily update of the progress of the student. The progress is already communicated to the parents once the evaluations of the class-works or the unit tests are made available ahead of the term-end examinations. Rather, a parent may be interested in understanding the actual position (not necessarily a ranking) of his/ her ward in the context of the ward's class. Hence, such analytical reporting will lend more insight into a student's performance – subject-wise average versus individual's marks, subject-wise statistical mode versus individual's marks, progress of marks in each subject over multiple examinations (across different years in different classes), band-wise aggregate distribution, etc., can be worthy data to be looked at.





Health monitoring

COVID forced schools to monitor and manage vaccination statuses for all the eligible stakeholders - students and staff. Though maintaining complete health records may not be a priority for schools, they may still indulge in tracking some of the basic data that is relevant for their functioning. Height, weight records at particular frequencies can help calculate BMI of each student leading to decisions regarding choice of food in the canteen. All sorts of vaccination records, medical history, details on allergies along with blood group information and the associated doctors' contact details can help schools take action in times of emergency.

Most schools that are data-ready have an attendance system in place for the students. Not only can the attendance system be linked to the students' absence, but more importantly, random absenteeism of students can expose interesting trends – one common trait, for example, is to be absent a day before class-works whose marks get added in the term-end reports. Class-work routines may be planned based on this trend analysis to reduce loss in effective learning time of students due to absenteeism. Leave data statistics can also point to seasonal health ailments that affect students irrespective of other engagements.

Video as data

Most of the private, urban schools today have a surveillance system in place – in classrooms, corridors, hallways, transport system and what not. It is imperative to accept that CCTV cameras are mere devices, they are a means to achieve security, but they are not the end in attaining a safe and secure school environment. However, storing large video files daily without any analysis of it will just add another task within the daily schedule of unending operations. Most institutes that boast of having 'n' number of CCTV cameras working 24/7 end up deleting the data unused after a certain number of days to free up storage space. What use is this data if not culled properly for information to better a school's administrative system?

Apart from reactively checking the video footage for an event of indiscipline or anomaly, regular analysis of the CCTV video may identify bottleneck areas on the school premises at different intervals of time. Like heat maps in football, the CCTV footages may be worked upon to expose foot traffic all over the school, throughout the day, across the different seasons and weather scenarios. This information may also lead to efficient evacuation routes during

emergency drill exercises planned for students' safety.

A regular monitoring of CCTV footage may also help in identifying delinquent student behaviours proactively, thereby aiding the concerned student through counselling and tracking his/her progress throughout his/her tenure in school.

In the two years during COVID a majority of schools adopted virtual, online teaching mechanisms via popular video streaming platforms including Skype, Zoom, Google Meet and several others. Quite a few schools were recording the lecture sessions as well with a plan to make them available at a later date should a student request for it. Not only did the pandemic result in a spike of online video content on a variety of themes and subjects appropriate for school children, it also opened up remarkable possibilities in reimagining teaching methods and evaluation patterns. There again, schools adopted ways to hold examinations and then accept, correct and return answer scripts via the available digital methods.

Sanitation inspection

In a first of its kind initiative, the Andhra Pradesh government has embraced Artificial Intelligence to monitor hygiene in government schools in the State. The Andhra Pradesh State Government School Education Department has partnered with IT giant Tata Consultancy Services Limited (TCS) and implemented the tracking system in as many 45,000 government schools across the State.



The system is equipped with a mobile app for capturing images of the school toilets such as commodes, urinals, wash basins and floors, daily. The images are then processed by TCS' AI engine and cleanliness of respective toilets are graded accordingly. The AI system sends the graded response back to the respective schools and in parallel gets reflected in a dashboard portal for public review every day. (https://jaganannagorumudda.ap.gov.in/MDM/TMFDashboardLatest.aspx)

This initiative that has reportedly increased school enrolment and reduced girl-child dropout is an eyeopener for similar initiatives that involve minimum but effective data capture on a regular basis.

Overview of the TCS' global offering 'Inspection-as-a-Service' is available on YouTube here: 'TCS Inspection-as-a-Service – Enabling Sustainable Living and Improving the Quality of Life'. (https://youtu.be/nZqRAx6_oUo)

Staff appraisal

Managing the performance of staff members (both teaching and non-teaching) has now become a mandatory process for any school that wishes to foster a culture of openness, sharing of practices and knowledge, analytical self-critique, and a desire to continuously improve. Performance appraisal in an objective way eventually gets reflected in a significant improvement in student achievement.

A simple and quantitative SMART (Specific, Measurable, Achievable, Realistic and Time-Bound) methodology can be adopted by schools to engage its staff members to submit yearly/half-yearly goals, as applicable. Near the end of the appraisal cycle, a

staff member needs to fill in a self-appraisal form which is to be discussed with the reviewer for final closure. For a teacher, the self-appraisal evaluation may be against (but not limited to) the following criteria:

- Class control
- New approaches to teaching
- Identification and nurturing of talent in class
- Application of training / workshop experience
- Question paper setting
- Correction of answer scripts

The reviewer feedback (numeric score) against each appraisal criterion will identify the gap in achievement. An analysis of this latency may lead to training requirements – both on soft skills as well as on core subjects.

Improvement survey

A school, like any institute, is an evolving workplace that needs encouragement, review, and policy changes from time to time. Survey feedback is one of the foremost working mechanisms, adopting which a school can understand the views of its various stakeholders, viz., parents, students, teachers, and vendors. Intelligently crafted objective questionnaires may help a school to collect data regarding standard of academics, quality of communication (both online and offline), visibility of school in social space and so on. This perception data can be calculated as a Satisfaction Index – separately for each group of stakeholders and then tracked as a trend analysis every quarter or half-year.

Conclusion

Gone are the days when school heads would rely solely on their years-long experience at the pretext of 'intuition' to make decisions. While that may work well for visionary leaders, for most others, the outcomes relied heavily on the intelligent capacity of the leaders in question. The point is, storing data is the first step towards a data-rich, informationfocused, knowledge-attentive academic system. Representing the data as meaningful information and mining the information to uncover unexpected knowledge is where the school leader's intuitive intelligence will come into play in the new paradigm of education. Only a thinking leader may recognize trends otherwise ordinary to many others, preempt problems and thereby plan for developmental strategies to overcome the issues. Achieving success with data depends on regular training to staff members on data literacy. Training has to emphasize that in the present and the future, data is not limited to numbers but extends to images, audio, video, texts, sentiments, and so on. A data-rich school must also train its stakeholders to identify 'good' data and to segregate it from 'bad' data, thereby helping to maintain its sanctity for future analytics.

The first and foremost strategic objective of the National Digital Communications Policy 2018 to be achieved by 2022 (https://dot.gov.in/sites/default/files/EnglishPolicy-NDCP.pdf) is 'provisioning of Broadband for all'. The first three of the seven goals that have been laid down for 2022 under 'Connect India' mission of the Policy are as follows:

- Provide Universal broadband connectivity at 50 Mbps to every citizen.
- Provide 1 Gbps connectivity to all Gram Panchayats of India by 2020 and 10 Gbps by 2022.

Enable 100 Mbps broadband on demand to all key development institutions; including all educational institutions.

How much of these have been achieved considering the adverse impact of two years of COVID is a conjecture; subsequent reports and documentation on the progress will confirm the success rate of the policy. However, it goes without saying that as a nation, India is on the path to bind the country digitally. The 'Recommendations on Roadmap to Promote Broadband Connectivity and Enhanced Broadband Speed' published by the Telecom Regulatory Authority of India (TRAI) on 31 August 2021 (available at https://trai.gov.in/sites/default/files/ Recommendations 31082021.pdf) shows the seriousness of the endeavour to eradicate the digital divide that plagues India and its student population. But, only network speed is not the deterrent to bridge the gulf between India's affluent elite and its poor other. Availability of affordable handsets, having apps written in the vernacular are other areas where there is a lot of emphasis and focus from the Government of India.

As of today, out of India's estimated population of nearly 450 million children in the age-group of 3 and 12, approximately 250 million go to school. India's 'National Education Policy 2020' aims to achieve 100 per cent Gross Enrollment Ratio in school education by 2030. This aligns with the communication revolution sweeping the country. The service sectors, the banking conglomerates and the financial aficionados are all reaping benefits from the digital infrastructural support by managing, maintaining, and mining the plethora of data. Will India's schools (both private and government) lag behind? The future is now the present and it is out there to conquer.

The author is a writer and film critic residing in Kolkata. He can be reached at <amitava.nag@gmail.com>.

Data as

In an article published earlier in this magazine (https://www. n an article published earner in this important teacherplus.org/making-edtech-an-ally/), I had recommended that we "Make measurement and analysis of measurement a vital function of running the school". Very few will disagree with the rationale behind this, but will often be flustered when asked to provide steps for implementation. I think it is vital that schools be supported on making measurement and the analysis of measurement, a vital function. There are multiple aspects that need support – what to measure, how to measure, how to record, how to analyzes, and most importantly, how to respond (which in itself is composed of many facets). While it might seem arduous or contrived to do all this "rather than teach" one must not forget that teaching is responding to the learner's state of being to ensure further development of cognitive, socioemotional, and psychomotor skills.

Consider a common scenario of two students who scored the exact same final score of 79 out of 100 in an exam. That is one kind of data. Ask the teacher – what does each need to get their score to 90? To 100? and if she has no answer other than "S/ He must study harder/better" or some version of "S/He should be more disciplined" then you know that a huge amount of valuable insight is not being extracted from the large amount of data that an exam performance provides us. And this is merely one exam of three hours from the whole year!

Imagine any dialogue, within the confines of a school, swiftly making a demand for data to establish the basis of statements being made and to challenge the model being employed to draw conclusions! Imagine the same dialogue being held between teacher and student and the student demanding to see the data and verify the model being used by the teacher! Rather than receiving a cryptic 79, what if a student asked – (a) What are my strengths? (b) What topics or forms of questions am I struggling with? (c) Are there holes in my strategy? (d) What are the data backing your responses? (e) What is the one thing, if changed, would improve my performance significantly? This would push teachers, school leaders to look at their work differently. Most schools simply classify their summative assessments across marks – 1-mark, 2-marks, 3-marks and 5-marks questions. What is the performance per chapter? Per domain or thread? What about performance against cognitive skills? This is where schools need to head to. This is when they hold data as part of their culture.

Back in 2018 when I was heading academics at Purkal Youth Development Society (PYDS), we changed the question paper

culture

Anand Krishnaswamy

format – (a) centrally and anonymously generated and (b) scoring by skills and thread/topics. The insights it provided helped identify individual student remedial strategies as well as teacher professional development needs.

As mentioned above, there are multiple aspects that need support and hence, elucidation. Going into each, along the various dimensions, is a tome in itself. I will restrict this article to understanding two of them and aim to provide an outline of how schools can take a step or two in the right direction. I also believe that these are vital to instilling a datadriven mindset in the school.

Most importantly, data are required to help us be better in schooling and educating. The intention is betterment; data analysis is a tool. One shouldn't confuse one for the other. Before I proceed, I would like to caution the enthusiastic reader:

- a) Start small and scale only when results of analysis have been verified for 2-3 cycles and all stakeholders are convinced.
- b) Do not hoard without use.

Formulation of hypothesis

Before any data are collected, one needs to be clear what aspects we are exploring and/or seeking to improve. I will leave pure action research out of this discussion (I would heartily recommend Action Research, Principles and Practice by Jean McNiff for a deep study). In short – What is the question we are asking ourselves for which data can help answer? It could be "Would providing pointers to improvement vs scores on tests improve performance?" or "Does creating pay scales democratically and transparently result in reduced attrition?" or any of the many questions that plague schools. It could also be a proven metric – e.g., absenteeism – that one decides to track.

Once the question or the metric is in place, there must be a joint conversation between school leaders, teachers, students, and parents to ensure that everyone is on the same page and is convinced about the methodology. It also gives everyone a chance to challenge or lend perspective to the particular data being correlated with an outcome. For example, speaking up in class might not necessarily correspond to understanding or at least the converse – not speaking up needn't imply lack of understanding. Some students might prefer to demonstrate their comprehension via different modes. Some teachers, perhaps, might have no clue why parental income or the nature of parental employment affects learning and the discussion helped.

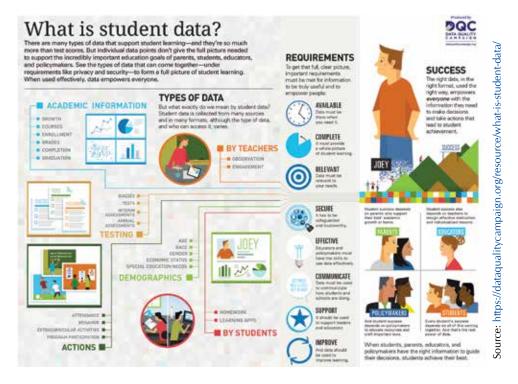
> Once everyone is on the same page, then we can afford to get creative on admissible/ permissible evidence and data. Students might come up with relevant means to prove command over a particular objective. This increases authenticity of assessment and responses.

Students and teachers can be sensitized to observe so as to challenge incorrect conclusions. For instance, if every student and teacher on a school bus is aware of the question

(say: Does changing bus drivers across bus routes decrease accidents?) then they might be able to clarify that a particular incident was not due to a change of driver and could have happened no matter who the driver was.

Data are required at various levels for various purposes. One needs data about student learning, pedagogical efficacy, while conducting any action research, optimizing resources, feedback data, etc. To attempt to collect all at the outset is a recipe for disaster. Discuss, debate and identify your top hypotheses (and, thus, the data points to validate or invalidate said hypotheses) or indicators of student learning, teacher well-being, etc. At the outset when data isn't one's cultural fabric, it makes sense to start with fewer indicators, see the value in them, identify ways of collecting them and responding to the same and be largely convinced of the utility of tracking these indicators before moving on to collect more and reap the benefits.

While data requirements to aid decision making varies, student data that is required, often across most questions impacting learning, includes (a) demographic information (usually obtained as part of the admission form) (b) academic information (c) assessment information (d) teacher observational info (also backed by data) (e) student performance (usually non-cognitive) and (f) student participation. A useful infographic about student data as designed by DQC (Data Quality Campaign) is shown below:



Data literacy

Once we have our question on the table, the most important skill that every stakeholder needs to possess is that of data literacy. If one doesn't understand what is collected, what else is relevant, dependency, correlation and causation, etc., then merely asking the question is wishful thinking.

While "Data Handling" is a common thread of chapters in CBSE mathematics, what is required is a skill beyond just the mathematics of it. The ability to see how rounding off of a numerical value can skew outcomes or unnatural categorization/grouping can completely tell a different story is a skill that needs development across subjects and outside of subjects

as well. Critical thinking skills are also developed in the process. Surfacing bias in data collection or analyses is something that would be possible with this skill, and thus eliminate notions of partiality.

There is immense scope for developing metacognitive skills as well. When a student who is being assessed for, say, mathematical skills is able to look at the content and ask "What truly would be a demonstration of mastery of this content?" they will be able to contribute to the conversation around whether, say, a summative assessment score is sufficient indicator of mastery. Including students in the data collection and analyses processes creates the space for ownership and brings about

transparency. Since each student has access to all the data collected about himself/herself, s/he has the opportunity to ask or rephrase questions that would help him/her to succeed. This is lost when data are kept away from students (usually under the suspicion that they will manipulate the data for favourable projections). These real-world data analyses exercises also help bring this topic to life because it is very relevant/personal.

For teachers, data literacy must be a mandatory professional development programme. Sadly, even the latest B.Ed. curriculum doesn't have a module on data literacy. It is a distant future when data about TPDs will be collected and analyzed! Teaching every teacher about the goldmine of information hidden in their assessment and interactions with students is important. Forcing them to back their hunches and conviction with data will push them to get better. This will help them respond better to the needs of the student cohort they are dealing with as well as present their cases better with school management. Making it a joint exercise with other teachers helps surface issues like "K's challenge is not the mathematics in word problems but the language in word problems".

School leaders too need to be adept at this skill especially for key decisions. I have known many a principal who would rate a teacher based on hunches and a few clever readings of their performance in class but barely ever sat in one of their classes! Again, at PYDS, I had asked teachers whose feedback should have the highest weightage and how many minimum observations lend credibility to a performance summary? We finally agreed on numbers thereby forcing out instances of impressionistic judgment and favouritism. They



rejoiced in this turn of process till the same was asked of students! When students shared instances of how teachers made random judgments about them without ever hearing them out or even investing in understanding their challenges, the process for students changed too necessitating more data-driven and intentional feedback that a student got to review. Teachers had to collect periodic feedback from all of their students to get an idea of trends of concerns.

Schools must take an extra effort in including parents in this initiative by playing the role of coach and advocate for the parents. Making an exploration or conclusion explainable to the parents is a vital responsibility of the school. To challenge on their behalf is one step towards gaining their trust and ensuring that data is at the centre of all conversations. This helps the conversation between parent and child as well. PTMs would be a lot more meaningful when parents come in with an increased understanding of methodology and data collected.

To summarize, there are many steps to being a data-driven institution. Some steps also require improvement in processes involving the governmental agents (either that they begin collecting some info or share better). However, there is enough work that needn't involve government agencies and yet provide immense value to the student, teacher, school leader, and community. The increased transparency supports greater community participation and can even make access to funds easier. With periodically published indicators, etc., schools increase transparency and stick to their commitment of constantly improving. Students, with access to data pertaining to their development, are likely to be more informed and invested in their development. Teachers too benefit from the increased transparency and might, hence, be driven to be more committed to the organization and its educational goals.

I would treat the aforementioned two facets as key as they are fundamental to any initiative we might take. Without universal data literacy and without a structured and democratic way of posing questions, schools are unlikely to improve in planned and predictable ways.

The author is a computer scientist-turned educator who has largely been working with schools for rural and/or underprivileged children. He has also contributed curricula design to the EdTech industry as well as training teachers and educational leaders, in situ. He can be reached at <anand.krishnaswamy@gmail.com>.

DI

Data privacy in schools

Neerja Singh

'he world today is data fuelled and driven. We are creating and storing and sharing information at an ever-expanding rate. And the more we share online, the more we expose ourselves to multiple risks. Learning how to protect oneself from compromise, corruption, and loss has therefore become a crucial self-preservation skill.

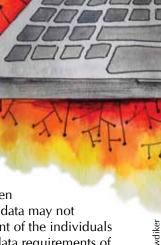
But what is data privacy and where do schools stand on this?

Data refers to pieces of information and the concept of privacy involves the ways in which this information should be managed. Data privacy typically applies to personally identifiable information (PII) and personal health information (PHI). In schools, this could include names and dates of birth for both staff and pupils, images of staff and pupils that confirm their identity, addresses of staff and pupils, recruitment information, financial records such as tax information and bank details, information relating to pupil behaviour and school attendance. medical records including doctor's names and medical conditions, exam results and class grades. and staff career reviews.

Data privacy is important because a data breach at school could put students' PII in the hands of identity thieves. Schools are a treasure trove of an incredible amount of personal data. Legislation on this subject is in various stages of evolution around the world. There is the Data Protection Act (DPA) which was updated to the General Data Protection Regulation (GDPR) across Europe in May 2018. In India the Personal Data Protection (PDP) Bill, 2019 is being reframed against contemporary digital privacy laws and comprehensive frameworks. These regulations cover the processing of personal data stored on school websites, paper, servers, and databases. Every time schools upgrade their software, or change their IT infrastructure, or introduce new technology that involves personal data, they are expected to undertake stringent data protection impact assessments. Precise documentation proving effective management of all information systems are now obligatory for schools, inviting penalties over non-compliance.

As a first step, while collecting information from a parent, child, or staff member, schools are expected to explain how it will be processed and used. Clear privacy notices are mandated to present and summarize what information the school needs, why it is being sought, and which third-parties

shall be privy to such data. Even the subsequent storage of this data may not happen without the full consent of the individuals involved. And given that the data requirements of primary and secondary schools may differ, there is scope for specific policies while covering the key areas such as transparency, intentions, computer security, information on third-parties involved, encryption details, procedures for data loss, and fair data processing. Recommendations include publishing of privacy notices on all enrolment documentation and on forms used to collect any personal information. A clear privacy notice is expected to be uploaded onto the school website. It is also suggested by the authorities concerned that schools send a digital copy of their privacy notices to all students and parents at the beginning of each new school year.



The seven significant GDPR principles that school data protection is based on are: lawfulness, fairness, and transparency; purpose limitation; data minimization; accuracy; storage limitations; integrity and confidentiality, and accountability. This brings us to security measures that schools can adopt to ensure their data is protected and private. These security measures could potentially include the use of strong passwords; encryption of personal information stored electronically; installation of virus checking software and firewalls in school computers; turning off all 'auto-complete' settings; limiting access to personal information wherever necessary; holding telephone calls in designated private areas; ensuring that all papers and devices containing sensitive information are stored securely;

> checking all storage systems for security; keeping digital devices locked away securely when not in use and shredding of all physical copies of confidential waste. Memory sticks and SD cards can be easily misplaced and are best fully encrypted and password protected. Additionally, hard drives must be securely erased by a technically capable professional if they are being discarded.

Annual audits are the way to guarantee that all information has been vetted for accuracy, stored for the time it is relevant and then in a secure manner. This will happen when school staff has received adequate traning on the confidentiality of personal information. The school Data Protection Policy ought to highlight on how individuals can use

the school intranet, internet and email for private communications. This would include guidelines on security issues that will come up when staff and pupils access the school intranet from outside of the school campus on a smartphone, tablet, laptop, or desktop device. Breaches of data could happen through a school's internet, intranet, and email systems. Evidence of inadequate data protection practices or guidelines includes lack of internet monitoring or filtering, little or no e-safety education in place, and students with no awareness of how to report data-sensitive problems.

The new educational technology ("edtech") platforms that emerged during the pandemic present additional challenges. Schools using these have responsibilities as data fiduciaries. Data Protection is an emerging vocation in educational institutions. These officers ensure internal compliance in schools and alert the relevant authorities around issues of non-compliance. The role of a Data Protection Officer is dynamic. given the consistent evolution of technological innovation and data protection laws.

The bottom line in the new data economy is that if your organization generates any value from personal data, you will need to change the way you acquire it, share it, protect it and profit from it. Entrenched habits, routines and networks will have to be broken to begin anew. In this new world, data gathered with meaningful consent will be the most valuable data of all. We have new technology now that makes it possible to acquire insight from data without acquiring or transferring the data itself. Insight will no longer need identity in other words. Once all human data has meaningful consent and insights are gained without transferring data, information and digital forces can flow together instead of being at odds.

The world is moving towards a data-sharing future economy based on consent, insight and flow. The answer is not in hoarding data assets but in investing them with fewer privacy and security risks and for better returns and services. Schools too need to quickly become trusted hubs for their community's personal data.

The author is a former teacher/journalist, published author and professional speaker on generational diversity with a background and training in media, having worked in advertising, public relations, documentary film making, and feature journalism. She is a TEDx speaker and represents the Professional Speakers Association of India on the Global Speakers Federation Board. She can be reached at <neerja@neerjasingh.com > .



PROFESSIONAL DEVELOPMENT

The teacher as a datadriven decision maker

Indira Subramanian

teacher makes many critical instructional decisions in planning her day-to-day lessons that makes her a pedagogical decision-maker. These choices play a crucial role in not just raising the quality of learning outcomes, but can also "close the achievement gap" between students as Wiliam and Black (2010) point out in their path-breaking research. Hence, using information from a variety of sources and deploying them carefully in the classroom is now an essential part of the teacher toolkit.

In this article, I provide an overview of what is data-driven decision-making; how it can be used for analysis, evaluation and goal setting; and provide recommendations for simple use of data sets in the daily classroom.

What is data-driven decision-making?

Data-driven decision-making refers to the systematic collection and analysis of various data points in the classroom to inform classroom teaching and learning. This data could include: assessment scores and grades, student skills, rubrics, and checklists to measure learning outcomes, and review of previous

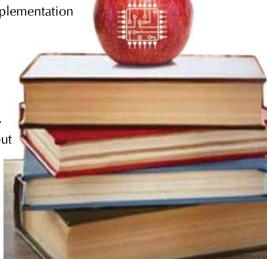
attainment to name a few. This could be qualitative data or quantitative data or a combination of both.

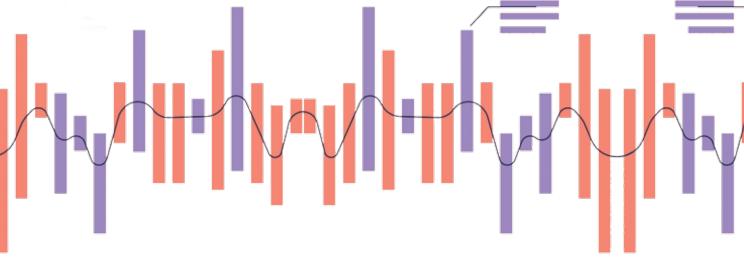
By using such information, the teacher is able to respond to her learners' needs using evidence based reasoning, and is able to justify her instructional choices. She is also able to cater to diverse learners by differentiating instruction appropriately. Together, data driven decision-making helps to bring in greater impact in the classroom by ensuring a

better congruence between planning and actual classroom implementation of lessons.

How to use data to drive decisionmaking

Teachers may be unaware but they have a treasure trove of data which is





quite easily accessible to them. Student assessment scores, classroom observations, rubrics, and checklists used to design and administer classroom activities, and previous years' performance records of students are all a fund of information. The key is to convert all this "information" in the form of isolated and unorganized numbers or text into useful data, from which significant patterns can be gleaned and inferences about the quality of learning can be made.

The first step is organize data using a spreadsheet by sorting, classifying, and ordering it. Once this is done, data analysis is a fairly simple task given the availability of user friendly software applications.

Let me illustrate this with an example using a Guttman chart analysis, a powerful technique which helps teachers visualize the performance of their students. In this analysis technique, 0 and 1 are assigned against incorrect and correct answers obtained in an assessment. If an answer is partially correct, it is marked as 0 because it indicates a gap in knowledge.

An example of a Guttman chart analysis

<u> </u>							
Student	Q1	Q2	Q3	Q4	Q5	Q6	Q7
Α	0	1	1	1	1	1	
В	1	1	0	1	1		0
С	1	1	1	1		0	1
D	0	0	0		0	0	1
E	1	0		1	0	0	0

Such an analysis helps the teacher to identify the Zone of Proximal Development of her class and establish the existing learning levels. It will also assist in goal setting for individual and groups of learners, and in differentiating instruction.

The above example is just one of many different ways that teachers can use data to make decisions in the classroom. Other examples include using standard deviation, mean scores, grouping and sorting scores according to ranges/bands. Qualitative data can be coded for patterns which can enable the teacher to find out her learners' interests and readiness.

The way forward

Over the last decade or so, it has been increasingly recognized that data-driven decision-making can make a big difference in transforming classroom learning. Towards this end, there is a greater impetus on teachers to upgrade themselves to learn how to transition to an information rich classroom and use data in meaningful ways.

The key is to first determine the objectives of what and how teachers want to use this information, and to collaborate with colleagues and co-teachers for a more concerted and school wide approach to the process. This will help teachers become action researchers in a sense and undertake a more systematic inquiry in the classroom. Such pursuits hold great potential and promise to manage the teaching-learning environment and reduce the gap in learning levels.

Reference

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The author is an educational researcher and works closely with schools in India and abroad for whole school improvement solutions. She can be reached at <indira.ttf@gmail.com>.

Cleaning up speech!

Pooja Birwatkar

Examine the vignette below

A conversation between mother and teenager

Mother: Are you using abusive and taboo words like the 'F' word?

Teenager: Yes, I know most of them.

Mother: Where did you learn them? We never

use these words in our home.

Teenager: School, friends. Everyone abuses. That's the way people talk nowadays. It's the way we address each other. We don't use it for showing anger or such. It's how we just generally

Mother: Do you frequently use them? **Teenager:** Yes, but I say only half the word. I never say the full abuse. I know it's not right. **Mother:** But this is not our upbringing. In our families we do not abuse. Can you not stop using abusive language with your friends, peers? **Teenager:** Oh! But how would I then interact

with my friends and classmates? I don't want to be different. You have a choice. Either I say the full word or I say half so that I don't disgrace the family. Make a choice.

he F-word is so normalized in communication that it no longer raises eyebrows, creates an awkward feeling or even disgust. Be it any expression of anger, frustration, failure, a happy moment, a joyful experience, pleasant surprise or

excitement, the most common reaction begins with the 'F' word. In fact, it has become a part of universal language having gained acceptance due to being frequently used and heard and no longer leads to a rebuke or reprimand.

While educationists, parents, and society do not accept this, the reality is that by the time a child is ready for school, the language acquisition that has happened so far, along with informal modelled learning, has already led to the development of a vocabulary loaded with offensive taboo words. One often sees young children using these words in an adult-like manner in contexts similar to their experiences with these words and also to express a wide range of emotions. The general reaction of adults including parents and teachers is to condemn, shame, threaten and punish them without finding out the depth of the child's understanding of these words. What we fail to comprehend is that such negative reinforcements contribute towards strengthening of the association of the word. At the same time, a constructive approach of making the child realize why the word should not be used would also not erase the word from the child's word bank. It is etched for permanency and sooner or later will emerge in conversations. In this regard any attempts to censor children from a language they already know are futile.

It's common observation that by the time a child enters adolescence, swearing and using abusive language becomes a part of their communication within educational spaces as well. These words have long been judged and forbidden to be used and hence their usage in schools is alarming. More appalling is





the conversational ease of using them as part of the normal communication process.

When language is taught in schools, swear words are never a part of it. Where do the children pick these words up? Who is top most in the blame game - media, peers, family, and interactions with people known and unknown in their sphere? Probably the biggest contribution regarding this comes from social media platforms where abusing, trolling, and shaming are uncensored and highlighted as the expression of freedom of speech.

Gender disparity is quite prominent in terms of the selection of these swear words. However, recent trends indicate that the gender divides are slowly narrowing. Boys abuse. It is a natural behaviour and form of expression. Boys will be Boys'. Such notions stem from the pseudo notion of masculinity and under this guise they are overlooked.

Our education systems are so strongly rooted in ethical stances that they never openly acknowledge that abuses, swearing, and the F-word are heard in schools. Teachers hear these words often and react either with anger, threatening punishment, or sometimes simply ignore.

Honestly, language teachers in their course of building knowledge never inform students about such words. How can we even speak these words in classes? It will convey a wrong message. As teachers we believe we cannot let these words surface in the classroom. But, how long can such beliefs and reactions protect students, as sooner or later they will learn them through social networks and experiences?

What are parents, educators, and other adults to do about the problem of child swearing? It is clear that at some point children learn taboo language;

> however, the nature of this acquisition is unspecified by language researchers. In the absence of a good body of data about

child swearing, obscenity law assumes that children are naive to taboo words and become corrupted or depraved when exposed to them; therefore, children should be protected from taboo words.

Teachers do not explicitly state the words... they never say it openly,

parents and family do not discuss it... then how do we address the issue? Why do we shy from discussing them when it is clear that they are being

Mature language learners can benefit from classroom discussions devoted to examining the use and significance of obscene language, at least in broadly based contexts.

A few strategies

- If a student is heard using a taboo or forbidden word, do not overreact, but respond in a restrained manner with an intention to hear what the student has to say in his/her defence for the usage.
- Calmly and politely assert that the words used are unacceptable and should not be used.
- Do not lecture the individual student immediately as it singles them out. This may do more psychological harm to them as they are at a heightened phase of social consciousness and social image.
- Always keep in mind that the student may not be on the same platform regarding their views on these words and may consider them part of normal conversation. Everyone is using these words; I just said today, I didn't mean the word. These may be the general reactive statements given. At these junctures just hear them out and close the matter for the time being. Later in a general discussion which has been crafted to address these issues, explain using well researched data so that it touches a positive chord psychologically, emotionally and socially with the students.
- Do not expect that short sessions like these will lead to complete transformation. There has to be deliberate yet positive interventions periodically enforced.
- Provide a list of alternative words which the students can substitute for abusive and offensive words. The teachers can creatively, with the students, make up words which are funny and nonsensical for the students to use. These words can be picked from language disciplines. These could be displayed across school notice boards with emojis.
- Periodic life skill and counselling sessions can be done by experts to help adolescents navigate the stress and storm period positively.

The author is an educator at Somaiya Vidyavihar University, Mumbai, specializing in the field of teacher education. She is passionate about research and ardently pursues it. Her areas of interest are constructivism, dialogic teaching, socio-scientific issues, diversity and inclusion in education and science pedagogy. She can be reached at <pooja.birwatkar@somaiya.edu>.

Moving beyond comfort zones

Nimesh Ved, Arti Pandey and Anshumalika Rai

Beginning

ur journey began with a few conversations on the need to bring gender and sexuality on the discussion table in our school. Located in a peri-urban setting in north India, our Hindi medium school caters to lower income group families.

During the initial days we agreed on certain basics:

♦ It may not be easy to sell the concept to colleagues - yet it is crucial to get them on board.



- Given that none of us had swum in the proverbial waters - we would not only need to get more familiar with the subject but also converse frequently amidst ourselves.
- ♦ Sporadic visits by experts would not help we would need to take the plunge ourselves.
- We were taking a gamble the chances of failure were not low.

Ourselves

During the initial days, we realized that the three of us need to give our time, move beyond our comfort zones, and cross a few barriers. This – for example included using select terms (sex, masturbation, etc.), which we seldom used even with those close to us. Also, figuring out where and how to begin also consumed a lot of time!

However, as conversations flowed, our body languages altered and slowly a lot else, fell into place.

Colleagues

During COVID there were stretches when children were away from school while colleagues attended the school regularly. This allowed us to engage with them at length.

During the initial days, reactions from a few colleagues were in the nature of: Why are we doing this? All is fine with us. After a few sessions we also realized it was not a great idea to over-stress on male-bashing and menstrual-health. The approach could be more positive and nuanced.

We changed gears and dove-tailed the topic with the activities in the school. Book readings and discussions were encouraged on the topic, as were poems and film songs. Menstrupedia Comics and A S Neil's Summerhill warrant a special mention – especially the latter with its shock value. Group work focussed on activities that are usually within the female domain: including stitching and making tea. We also deliberated on issues like awkwardness, harassment, touch, equality, and abuse. At this stage, the reactions broadly were in the realm of: These issues do exist but with neighbours and distant family – they are distant. Conversations had begun to flow beyond the structured sessions into tea-time talks and sub-groups.

Next, the sessions had colleagues discuss laws and recent news on the topic. A judgment that was then creating waves in the media was also taken up. However, what clicked was film screenings followed by discussions. An eclectic range – from English Vinglish to Mirch Masala - that included short films. Discussions post the screenings revealed that not only did we see different aspects in the same movie, but we had also begun to talk on issues that we would previously have not touched with a barge pole. A couple of colleagues who remained silent during the previous sessions also opened up. The depth of some of the points raised during the discussions surprised us. We had now moved into deeper waters.

Slowly personal experiences came up as did caste and religion.

Children

After the children returned, post-COVID, we took the initiative to them. During the initial days, linking gender and sexuality with ongoing activities was the fulcrum. Within a short period, we moved to planning activities where these were subtly inbuilt – especially in the domains of books (reading, discussing), home-science (cooking, stitching), and of course school-trips.

We had been concerned about how children would react and as a result had gone slow. Time told us that we had been unduly worried and like it happens many a time – the children surprised us. Their acceptance was almost unconditional despite some of their day-to-day practices being guestioned. Also, more than a year of engagement with colleagues had us better placed in terms of not only the what and the how but also our confidence levels. The children too – probably – read this.

We slowly moved towards having sessions on the topic with children. The initial session had us listen to a couple of film songs. We selected a few terms from the songs to begin with; after a few minutes the conversations flowed smoothly. Of course, towards the end they insisted that we end with another song.

Engaging with children has been fun.

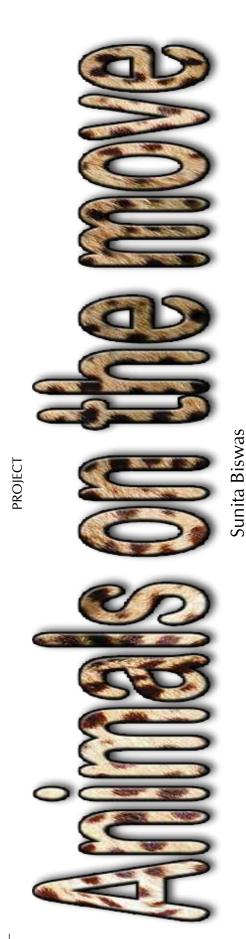
Today

Today, those initial conversations that the three of us had appear serendipitous. The mutual trust which enabled us to take them up has since evolved into a healthy friendship and we are glad about how the journey has so far shaped up - be it amidst us, with colleagues or with children.

However, as we shift gears and other societal inequities and dilemmas make way into the conversations, we realize that these conversations are not just about gender and sexuality but about the society all of us share. About a society that is changing at a rate that is faster than what many of us are comfortable with. Labelling or boxing these conversations may not help.



The authors enjoy being amidst children, books and music. They can be reached at < nimesh.explore@gmail.com >.





This recent piece of news can become an unusual and interesting springboard for an immersive, cross-disciplinary project in middle school. Project Cheetah, as the entire transportation exercise was called, has varied aspects to it, all of which can be used in different ways in the classroom to further learning. The adolescent in the middle school has a natural curiosity and fascination for animals which can be channeled into connections with different, yet relatable, subject areas for a more holistic understanding of an otherwise momentous movement of wildlife between two continents.

One can begin with a **biology** lesson identifying the species. While it is true that the cheetah is a part of the larger cat family, Felidae, it is perhaps common to lump it with the other big cats, that is lions, tigers, jaguars, and leopards that belong to the genus *Panthera*. However, the cheetah is the only

remaining species of the genus Acinonyx. Once this classification is clear one can move on to the distinguishing differences between a leopard and a cheetah since, at first glance, the two may appear to look alike. A cheetah has clear black spots all over its body and a leopard has irregular, rose-shaped spots called rosettes on its body. Also, cheetahs have black, tear-like streaks that run from the corner of their eyes all the way down to their cheeks. Moreover, leopards are only half as fast as the cheetah which, as is well known, is the fastest mammal on earth. Built as they are for speed, cheetahs are also sleeker than the larger and more muscular leopards.

Delving a little more into classification, there are five sub-species of the cheetah of which four are of African origin, the fifth being the Asiatic cheetah. With a current population of less than 40, to be found in Iran today, the Asiatic cheetah is currently on the critically endangered animals list. A mapping exercise in the **geography** class would help students develop an idea of the countries where the animals are to be found today like Kenya, Namibia, Botswana, Tanzania, and Iran. At this point a brief introduction to Pangaea, and the process of the formation of the continents, might arouse interest. It could be pointed out here that the cheetah is a distant relative of the puma, and, in fact, made its way to the African grasslands from North America a million years ago, from where they migrated to south Africa and west Asia which explains their predominance in those areas.

Lingering in the **geography** classroom, and moving on to a study of the cheetah's habitat, because of their great speed of movement, they prefer to live in wide open spaces and are therefore to be found in the sub-Saharan savannah where they can hunt their

prey lightning fast, helped by their excellent sense of sight. The cheetah is hard to see because its spotted coat blends with the tall, dry grass of the plains. However, the cheetah can also survive in various other habitats like deserts, lightly wooded and mountainous areas. They are carnivores and typically prey on wild antelopes, gazelles, impalas, hares, and rabbits. An interesting fact in this context is that cheetahs never return to a kill and only eat fresh meat, they also never scavenge, so if they cannot capture and kill their own prey because they are sick or injured, they will starve to death. All this can be compiled into an absorbing fact-file on the natural surroundings and lifestyle of the cheetah.

> There are several books for younger children with stories about cheetahs, including an enchanting and well-known Panchatantra fable, The Lion and the Cheetah. While a middle schooler's reading skills may perhaps be more advanced, these stories are vibrant and attractive, and offer many interesting details about cheetahs. After going through a few, students could try their hand at some **creative writing** and come up with their own cheetah stories (or poems), which would be an excellent process of learning for them. Watching documentaries (especially on National Geographic) would be a great way to collect more information.

> > At this point, it might be necessary to direct the students' attention to the dwindling numbers of the cheetah population worldwide. Once found throughout Asia and Africa, cheetahs today are racing dangerously close toward extinction. The reasons why they are an endangered species today need to be explored. Loss of habitat and declining numbers of their

prey combine to threaten the future of these big cats. Issues of climate change and habitat destruction, combined with poaching by humans, need to be discussed in the context of their impact on the survival rate of the majestic creature. The cheetahs' own genes also pose a challenge to their continued survival.

From here, moving to the **history** classroom, students can travel back in time when cheetahs were plentiful in India. Experts say the word "cheetah" originates from the Sanskrit word "chitraka", meaning "the spotted one". In Bhopal and Gandhinagar, cave paintings dating back to the Neolithic age depict the cheetah. The Mughal emperor Akbar, it is said, himself owned a thousand cheetahs which were used for hunting blackbucks and gazelles. Records even document a white cheetah with blue spots during the reign of Jahangir. In those times the animal was found in the entire country, barring the high mountains, coastal areas and the northeast. During the British rule in India, it was called the hunting leopard, a name derived from the ones that were kept in captivity in large numbers by Indian royalty to use for hunting wild antelopes. Cheetah coursing or the pursuit of game by a trained cheetah was common among the Indian royalty. By the beginning of the 20th century, thanks to extensive hunting, the Indian cheetah population had dipped to a few hundreds and the

import African animals for coursing – around 200 were imported between 1918 and 1945. Maharaja Ramanuj Pratap Singh Deo of Korea, Madhva Pradesh is believed to have killed the last three cheetahs in the country in 1947. In 1952, the Indian government officially declared the cheetah extinct in the country.

And now the cheetah is back. The entire logistics of transportation of the eight animals from Namibia to Madhya Pradesh could become a detailed and interesting study in the general knowledge and current affairs classroom. The world's first intercontinental translocation of a carnivore was definitely a meticulously planned exercise, involving the efforts of many in both countries. From the Supreme Court clearance on an "experimental basis" to negotiations orchestrated by the Union Ministry of Environment and Climate Change involving complex logistics, a lot of ground had to be covered, and not just in miles. The aircraft in which the big cats travelled required special modifications to the cabin to allow cages to be put in place. A B747 Jumbo jet, with the nose section painted with the face of a wild feline, was used to ferry the cheetahs from Namibia. The special chartered cargo flight, with five females and three males on board, took off from Hosea Kutako International Airport in Windhoek and landed at the Indian Air Force Station in Gwalior, Madhya Pradesh. From there they were taken by helicopter to the Kuno National Park where dedicated enclosures with savannah shrubs and grasses had been made

to make the habitat suitable for the just-arrived cheetahs. The cats were kept in a "soft-release enclosure" for acclimatization purposes before they were ready to be released into the wild. Latest news has reported the guarantined period is gradually ending and two cheetahs that have been released from the protected enclosures have already made their first kills. This signals that perhaps the cheetahs are already adapting to their new environment.

In the context of conflicting opinions being voiced about the whole endeavour, and as an extended activity, a debate or group discussion could be organized with older students. This could focus on whether the Indian government's aim, of developing the cheetah population to help in the global conservation of the animal and revive the grasslands-forests habitat, will indeed be realized, or whether this will end up as a 'vanity project', as described by some,

Indian maharajas and

princes began to



Cheetah chasing its prey. Captured at Ree Park - Ebeltoft Safari, Denmark.

Photo courtesy: Malene Thyssen (http://commons.wikimedia.org/wiki/User:Malene)

which will actually become a threat for the forest communities in the area. Examples of other nations that have successfully reintroduced animals in the past, such as the wild bison, the lynx, red kites and more could be looked at.

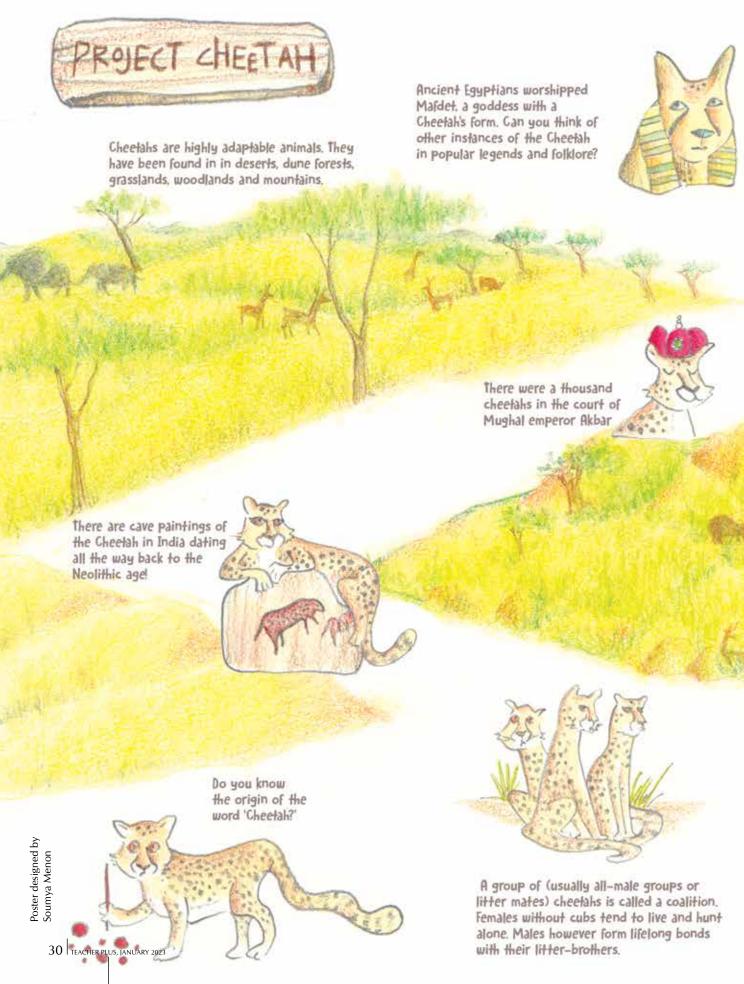
Moving a little away from the cheetah, as a followup activity students can research about other species that are not native to India but have been introduced to the subcontinent, over the centuries, so much so that today it may come as a surprise that they were not always a part of the indigenous fauna. Camels, horses, donkeys and even chickens were brought at different times by various groups of people. Cattle originally came to India from Central Asia. At the same time, a flourishing export trade in animals existed between India and Africa and Europe even as far back as 2000 years ago. This could become an interesting activity for extended research and discussion.

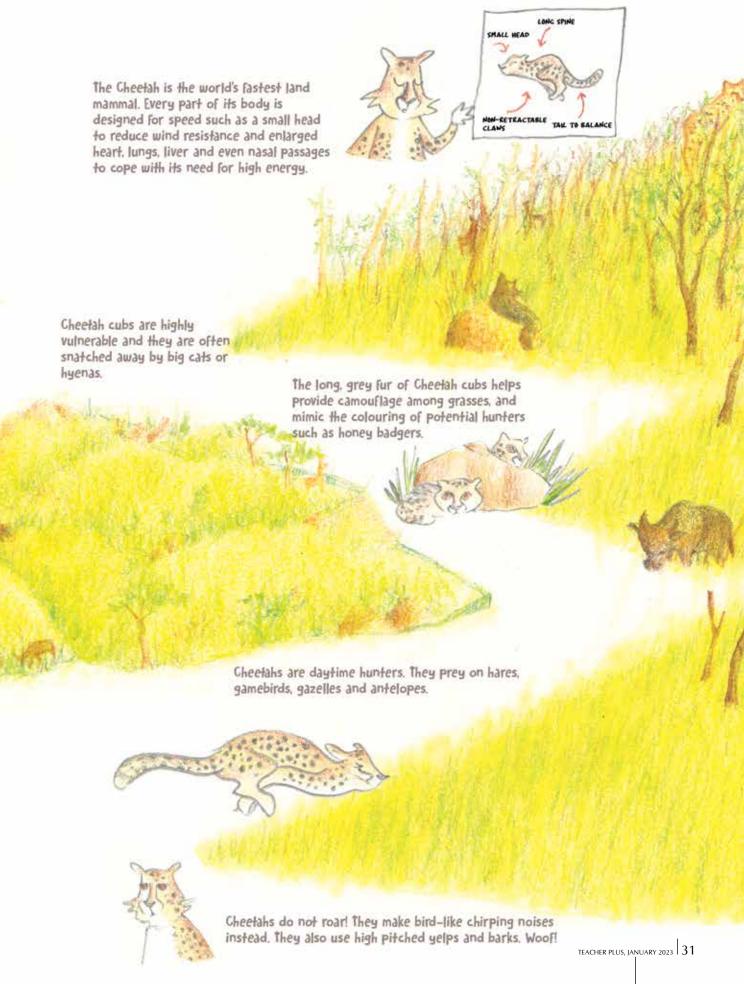
The project would perhaps not be complete without a mention of the "exotics". A data base created in 2020 recorded 32,000 private individuals in India who have voluntarily disclosed owning a menagerie of exotic animals! The pets ranged from critically endangered species like the black-and-white ruffed lemur from Madagascar and beisa (an East African antelope) to bearded dragons, pythons, marmosets

and much more. And their owners range from royalty and nobility, celebrities, and commoners in two-bedroom apartments. And not just in India - this is a global phenomenon which makes for a fascinating study. Mike Tyson, it is said, once owned three Royal Bengal tigers! And the Ambanis are building a 280-acre zoo and animal rescue centre in Jamnagar, Gujarat, where komodo dragons and African lions will be the highlights! The movement of these animals from their place of origin, their domestication in often stressful, and sometimes inhumane, conditions outside their natural habitats, the legal aspects of their ownership and treatment are some areas that could be researched and presented as a wrap up activity.

Thus, a very different and diverse project could emerge out of this decision by the Indian government to reintroduce the cheetah. Through this project the students would understand the various factors and facets of this initiative specifically, as well as the larger issues of bio-diversity and ecological balance and conservation.

The author is a Fulbright scholar and has been teaching at various levels in different curricula for over 30 years. She currently teaches History in the middle and high school at Modern High School for Girls, Kolkata. She can be reached at < sunceebee@gmail.com >.





The transformative power

Aruna Sankaranaravanan

ntil now, in this column, I have covered nonfiction books written mainly by researchers and academics that I felt would resonate with teachers. This time, I review a delightful account of a little Japanese school girl whose life is turned around by a perceptive mother and an extraordinary principal who runs an unconventional school built on a bedrock of empathy. In Totto-chan: The Little Girl at the Window, as author, Tetsuko Kuroyanagi, recounts her own academic journey through the character of Totto-chan, simple nuggets of psychological wisdom shine through.

Totto-chan is expelled from her school in first-grade. Her misdeeds at the previous school include opening and shutting her desk repeatedly, standing at the classroom window and inviting a street musician to perform and drawing on her desk with a crayon. While Totto-chan does not mean to cause trouble, the school perceives her actions differently. So, the parent is asked to take the child out of school.

However, her mother does not reveal this fact to her daughter, rightly fearing that the child is too young to comprehend why this has happened. Unlike the typical parent, neither does her mother berate Totto-chan for 'misbehaving' in the previous school. Instead, she simply asks her daughter if she would like to go to a "new school".

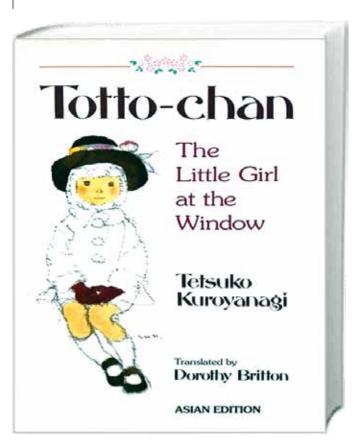
After an interview with the headmaster of Tomoe Gakuen, where he listens attentively as Totto-chan prattles on and on, he tells her that she is now a "pupil of this school," making her feel part and parcel of the establishment. On the first day of classes, Totto-chan is surprised to discover that the school doesn't follow a timetable with one period leading to the next. Instead, the teacher writes down all the "problems and questions in the subjects to be studied that day" and asks the pupils to pick the one they would like to work on. This allows the teacher to notice what subjects interest each student and how each one thinks.

Once the academic tasks are finished in the morning, children are encouraged to take an afternoon walk along with a teacher, who points out and

discusses various flora and fauna they encounter. Besides getting exercise and spending time in nature, children learn about the local ecology and environment through these sojourns.

The principal is wary of conventional education that stresses the 3 Rs without necessarily honing a child's "sensual perception of nature". Additionally, mainstream schooling doesn't draw on children's inherent sense of awe and wonder to propel them to seek further. "Having eyes, but not seeing beauty" and "having hearts that are never moved" are what worries this compassionate principal.

Further, the headmaster is attuned to individual needs of children, both physical and psychological. The school's pupils include a child crippled by polio and a boy with bow-legs. The school's sports day hosts events such that children who are differentlyabled can also excel. During a lunchtime assembly, a



of belief

child who fears speaking in front of a group, is gently and reassuringly coaxed to speak up, till he musters the courage to string a few words and then a few sentences together.

In Tomoe Gakuen's nurturing and conducive atmosphere, Totto-chan blossoms into a confident young student. The headmaster's reassurance, "You're a good girl, you know" turns into a selffulfilling prophecy as Totto-chan strives to live up to his words. Unfortunately, Tomoe Gakuen is razed to the ground as bombs rain down the school during World War II.

In the Postscript, the author states that the book is based entirely on events "that really happened". She is also grateful to have encountered such an empathetic school with a visionary principal who literally turned her life around. If not for Tomoe, Kuroyanagi muses that she would have probably been labeled "a bad girl". In today's parlance, the child may have been diagnosed as having "attentiondeficit hyperactivity disorder". However, as this book illustrates, these labels are not necessarily a feature of the child alone but result from an interplay of individual and environmental factors.

When the same child is placed in an open, sensitive and accepting environment, some of her very weaknesses morph into strengths. Many traits may be construed as strengths or foibles depending on contextual factors. While Totto-chan was seen as talkative, impulsive and disruptive in her former school, she becomes expressive, spontaneous and confident in the nurturing atmosphere of the new school.

The book also underscores the importance of not boxing children with negative labels. By believing that all children may grow into the best versions of themselves and giving them adequate time and space, both physical and psychological, to do so, children often surprise and surpass our expectations.

The writer is the author of Zero Limits: Things Every 20-Something Should Know. She blogs at <www.arunasankaranarayanan.com>.

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Kya woh mere log hain?

Children, citizenship and poetry

Samina Mishra

he other day a friend shared how after reading the newspaper every morning he felt a heavy sense of dread and asked how I was coping given the darkness of the times. His question made me think of my everyday that takes me into the lives of different groups of children. In the last eight months, I have spent time in three different parts of India, talking to children about their ideas of citizenship. Many of these children live with want their homes are in neighbourhoods with poor infrastructure, their schools have limited resources, they have to carve out spaces for play in congested areas, and so much of what they see on phones or TVs are beyond their reach. Their worlds are so very different from mine, insulated as I am by privilege from the everyday harshness of the despotic world we live in.

What then does it mean for someone like me to ask them about Liberty, Equality, and Fraternity in this 75th year of India's independence? Lata Mani speaks of how "the stories we tell locate us". It is my hope that through Hum Hindustani, a project on children and citizenship, I am able to tell stories that both recognize and rise above differences so

that we can also remember the commonalities – that at independence, we were all promised Liberty, Equality, and Fraternity, that it is our right to ask for these, and our responsibility to realize a world that honours these.

Much of my engagement with children revolves around creative practice, through a sharing of artistic work as well as a process of co-creation. The arts in the classroom – formal or informal – encourage children to look at their world and to look at it aslant, in ways that they may not have looked before. The arts also enable self-expression, encouraging children to express their thoughts and in that process make sense of their lives and worlds. The scholars, Michael Bonnett and Stefaan Cuypers (as guoted in Beauvais) explain, "It is only by expressing them and feeling the world's response, either actually or through acts of the imagination, that we discover what our thoughts really mean and what the world means to us". Children's engagement with the arts enables this discovery, allowing them a space to be and become simultaneously, to articulate and form at the same time. Just as I clarify my articulations even as I write this essay, forming a sense of responsibility for my





thoughts, creative engagement can give children a chance to build a relationship with the world that includes a sense of responsibility for it. This has been made clear to me, again and again, in my interactions with children.

This essay is based on a project that draws upon my previous work with children in collaborative creative practice using text, image, and sound. The project, Hum Hindustani, includes creative workshops with children that are designed around the ideas of Liberty, Equality, and Fraternity, using group discussions as a lead-in to work being created by the children on a variety of prompts. In this essay I will focus on one such interaction that led to the writing of a poem on the prompt, Mere Log (My People) by two teenage girls in Govandi, Mumbai.

Natwar Parekh Compound, Govandi

Natwar Parekh Compound (NPC) is a collection of high-rise buildings in Govandi, built in 2007 as part of the Slum Rehabilitation Authority's provision of formal housing to slum and pavement dwellers from different parts of Mumbai. People from more than 10 different locations have been relocated here, making way for various urban infrastructure projects across the city. With more than 25,000 inhabitants, the 5-hectare neighbourhood is one of the most densely-packed urban areas in South Asia, and the relative space available per person is as low as 1.9 m (Community Design Agency). Many of the inhabitants of NPC are permanent residents but there are also several who are tenants. The attached bathroom, piped water connection, and elevators in each building were attractive for most of those who moved here, but the reality is that infrastructure remains a big challenge. The alleyways between the buildings are piled up with years-old garbage, broken drainpipes discharge sewage onto the streets, and damaged streetlights are common. Much of this is being addressed as part of a revitalization project by Community Design Agency, an organization that has been working in the area since 2016. One of the steps taken in collaboration with the residents to find solutions for the challenges faced by the

neighbourhood has been the setting up of a library for children, Kitaab Mahal. The library is envisaged as a catalyst for building community engagement and creating a space for children to learn, particularly during the pandemic when online learning in their cramped homes was difficult.

Kitaab Mahal was the site of the art and writing workshop that I conducted with 13 children - 8 Dalits and 5 Muslims (Ansaris, a caste that is considered OBC) - from classes 6 to 9, enrolled in both municipal and private schools. Two of the children were out of school - their family had moved to NPC during the pandemic and the parents had not vet received the transfer certificate from the earlier municipal school. As daily wage-earning rag-pickers, it was difficult for them to make time to follow up on this, so the boys remained out of school at the time of the workshop. S and K, the two girls whose poems are the focus of this essay, are both 14-years old and had just finished grade 8 in municipal schools at the time of the workshop. Both liked their school though they expressed that the two years of online schooling during the pandemic had been difficult and that there had been little learning. This was evident in their writing skills - they asked for help in writing even simple words. S belongs to a dalit family from Maharashtra and lived in Powai before moving to NPC. K's family is from Uttar Pradesh, also dalit, and she spent several months of the pandemic in her village before returning to Mumbai when her father could go back to work. Both families have been living in NPC for several years.

The girls were both quiet and shy, needing a lot of encouragement to speak. Both are regular visitors to the library, with S also volunteering and reading stories to younger children. In one-on-one conversations, both expressed an awareness of their caste identity – they spoke of being "low caste" or "chhoti jati". K spoke of being Hindu and that there were castes among Hindus. "We are Jaiswal..." she said, "I don't know exactly but maybe... they say chamaar, no? Like that... so, they call that a chhoti jati, low caste". The way they spoke about



caste revealed the intersecting experiences of religion, caste, and class. "Caste means different religions, different communities," said S, "Caste means different religions, like Jai Bheem, Marathan, Christian. There's a lot of difference between Jai Bheem and Marathan. Meaning Jai Bheem is another caste, Marathan another. Those people don't accept everyone, don't accept the Jai Bheem people". K also spoke of families that speak nicely to her and families that don't, but in her articulation, the lines were drawn somewhat differently – "Because those people are also Hindu and think they are like us".

Both know about Ambedkar, as the author of the Constitution that had abolished caste differences and as an almost-God for their community, whose birth anniversary is celebrated with ritualistic worship. For April 14, Ambedkar Jayanti, NPC is abuzz with activity – string lights and posters are put up and temporary statues (idols) of the Buddha, Ambedkar, and Phule are installed and garlanded. People visit the various sites nearby, including mobile trucks decorated with lights, coloured blue to signify dalit resistance. The trucks play popular Marathi songs about Ambedkar and dalit unity on loudspeakers and people dance together. In neighbouring Chembur, there are long queues of people waiting to pay their respects to the statue of Ambedkar that stands in Ambedkar Garden. Families from NPC go there and to Shivaji Park where a huge celebration is organized. S said that she, like most people, dresses in blue and white colours on April 14 and the family makes kneer to mark the special occasion. K took me to the local Ambedkar statue in the square between buildings at NPC and prayed there as if it was a shrine. "Today is his birthday and he wrote

the Constitution for our Bharat. And in the Indian Constitution, religion, our Hindu religion here that has caste, that everyone considers untouchable... that's why Babasaheb Ambedkar wrote the Constitution."

Their knowledge of the Constitution, however, and the rights it bestows was hazy. For example, S shared, "I don't have any rights in the country..." There was a very clear articulation of class inequality, both in relation to the larger city of Bombay where class differences are starkly visibilized in the 5-star hotels that are inaccessible to them, as well as within NPC with some families having more than others. K spoke of how people with more money in NPC had fixed up their homes with tiles and now did not want to mix with families like K's who had not been able to do the same. She also spoke of many Muslim families who were reluctant to let their children talk to her. In contrast, S expressed a great closeness to Muslims – "I like the Mohammedan caste... because I have said namaz with them... I like that caste. Because I have lived with them, na." Her close interaction with Muslims including her best friend, she said, gives her insights into how they feel when there are calls to ban the azaan or to not allow girls into school if they wear a hijab. "That is not right," she said.

The poems

It is in this context that the poems written by K and S emerge, as a response to the idea of fraternity that we discussed as apnapan, a feeling of being one with others, of being oneself and together, comfortable and with a sense of belonging.

मेरे लोग / K

वह लोग जो इंडिया में रहते हैं क्या वह मेरे लोग हैं? वह लोग जो पाकिस्तान के लिए लड़ते हैं क्या वह मेरे लोग हैं?

वह बच्चे जो मेरे साथ क्लास में बैठते हैं क्या वह मेरे लोग हैं? वह टीचर जो क्लास के बच्चों से गुस्से से बात करते हैं क्या वह मेरे लोग हैं?

वह फैमिली के लोग जो मेरे साथ रहते हैं क्या वह मेरे लोग हैं? वह मामा जो फॅमिली से लड़ते हैं क्या वह मेरे लोग हैं?

वह नानी के गाँव के लोग जो कहते हैं –
"नदी में पानी ज़्यादा है, वहां मत जाओ!"
क्या वह मेरे लोग हैं?
वह दुकान-वाले जो लड़िकयों को गन्दी नज़र से देखते हैं
क्या वह मेरे लोग हैं?

वह लोग जो दुनिया के पर्यावरण को बचाना चाहते हैं क्या वह मेरे लोग हैं? वह लोग जो धरम पर लड़ाई करते हैं क्या वह मेरे लोग हैं?

My People / K

Those people who live in India Are those my people? Those people who fight for Pakistan Are those my people?

Those children who sit with me in class Are those my people? Those teachers who talk angrily to the children in class Are those my people?

Those family members who live with me Are those my people? That uncle who fights with the family Are those my people?

Those people in my Nani's village who say – "The water's high in the river, don't go there!" Are those my people? Those shopkeepers who look at girls lecherously Are those my people?

Those people who want to save the world's environment Are those my people?

Those people who fight because of religion Are those my people?

मेरे लोग / s

वह दोस्त जो मुसीबत में साथ देते हैं क्या वह मेरे लोग हैं? वह पडोसी जो छोटी-छोटी बात पर लड़ते हैं क्या वह मेरे लोग हैं?

वह फैमिली के लोग जिन्होंने मेरी बहन की शादी के लिए पैसे दिए थे क्या वह मेरे लोग हैं? वह नानी जो मुझ पर शक करती है क्या वह मेरे लोग हैं?

वह किताब महल लाइब्रेरी के लोग जो मुझे हर चीज़ में चांस देते हैं क्या वह मेरे लोग हैं? वह लोग जो ताज होटल के अंदर जाते हैं क्या वह मेरे लोग हैं?

वह टीचर जो मेरी बात सुन्नते हैं और मुझे समझते हैं क्या वह मेरे लोग हैं? वह पुलिस-वाले जो अमीर का पैसा लेकर गरीब पर इलज़ाम लगते हैं क्या वह मेरे लोग हैं?

वह पवई के चाल के लोग जो मेरे साथ 14 अप्रैल को आंबेडकर जयंती मनाते थे क्या वह मेरे लोग हैं? वह लोग जो मस्जिद तोड़ते हैं क्या वह मेरे लोग हैं?

My People / S

Those friends who are with me in difficult times Are those my people? Those neighbours who fight on small things Are those my people?

Those people in my family who gave money for my sister's wedding Are those my people?
That grandmother who is always suspicious of me
Are those my people?

Those people at Kitaab Mahal library who give me a chance to try everything Are those my people?

Those people who walk into Taj Hotel Are those my people?

Those teachers who listen to me and understand me

Are those my people?

Those policemen who take money from the rich and falsely accuse the poor Are those my people?

Those people in the Powai chawl who on April 14 celebrate Ambedkar Jayanti with me Are those my people?

Those people who tear down mosques

Are those my people?

The poems present a tapestry of everyday vignettes from S and K's private and public lives that ask us to reflect on conventionally accepted notions of community and belonging. What can this experience of writing mean for the children? What is the adult's role in the process? And what can we learn from listening to them? These questions are explored in the next part of the essay.

(To Be Concluded)

The author is a filmmaker, writer, and teacher based in New Delhi, with a special interest in media for and about children. Her work uses the lens of childhood, identity and education to reflect the experiences of growing up in India. She can be reached at <saminamishra@gmail.com>.

Pedagogical Content Knowledge - An attempt to outline it

Chandrika Muralidhar

Kusum, a teacher of math, braces herself to enter her grade 7 class. She is a teacher who has taught for four years in the school. She earlier took classes for students up to grade 5. Her apprehensions are in place. With a worked-out plan and resources she begins her class with informal conversation and gradually and seamlessly poses questions and encourages the learners to respond.

Shailendra is teacher of science, who has completed his teacher training and has been recruited in a school in his home town. It's his first month at the school and his first experience of being a teacher. He approaches his colleagues for suggestions in classroom teaching and learning and tries to understand the methods used by them.

Having taught English for close to a decade, Tamizhselvi is mentoring a couple of new recruits towards appropriate pedagogy of language at the grade 9 level. She shares her resources, experiences of teaching and her approach to understanding the learners and their needs.

hen one reads the above three snippets, it would be natural to relate to at least one or maybe even all the three. What one could probably understand is that all of us as teachers are in various stages of evolving as educational professionals. What does it take for one to be a teacher? Maria Montessori said, "The greatest sign of success for a teacher is to be able to say, 'The children are now working as if I did not exist'". For this to happen in the classroom a teacher would need sound knowledge of the concepts that need to be taught and the relevant way to teach it. So, when we look at this, there is deep connect between the two and their amalgamation is what would lead to effective teaching-learning in the classroom.

A teacher education researcher, Lee Shulman (1986) worked extensively in expanding and improving the understanding of teaching and teacher preparation. In his view, developing general pedagogical skills was insufficient preparation for teaching especially when there was a focus mainly on content knowledge. The

key to distinguishing the knowledge base of teaching has its foundation at the intersection of content and pedagogy. Shulman spoke of Pedagogical Content Knowledge (PCK) as teachers' interpretations and transformations of subject-matter knowledge in the context of facilitating student learning. An understanding of what influences the learning of topics as easy or difficult; the conceptions and preconceptions that students from different ages and backgrounds bring with them to the learning of frequently taught topics and lessons, is another way of defining PCK. Shulman describes it as,

The blending of content and pedagogy into an understanding of how particular topics, problems or issues are organized, represented, and adapted to the diverse interests and abilities of learners, and presented for instruction. (Shulman, 1987)

Let us consider our math teacher Kusum – PCK is the overlapping part of her mathematical content knowledge and pedagogical knowledge of teaching



and learning. Having a strong PCK can enable her to choose relevant instructional strategies (e.g., games, manipulatives) included within a structure (e.g., collaborative learning, inquiry, problem-solving) to effectively deliver the mathematics content. However, an experienced teacher like her who has great knowledge in mathematics, does she possess the appropriate PCK? The same question could be posed for Shailendra and Tamizhselvi.

The key elements of PCK are:

- 1. Content knowledge Proficiency in representations of subject matter that students will learn. It includes knowledge of concepts, theories, ideas, organizational framework, evidence and proof, as well as practices and approaches that lead to developing such knowledge.
- 2. Pedagogical knowledge The teacher's in-depth understanding of the processes and practices or method of teaching-learning. This includes understanding the nature of students, strategies for evaluating their learning and understanding the cognitive, social, and developmental theories of learning and how they apply to the students in the classroom. (Koelhler & Mishra, 2009)

To complete what Shulman termed as the knowledge base for teaching or essential knowledge for teachers, in 1987 he included other elements,

- 3. Curriculum knowledge
- 4. Knowledge of educational contexts
- 5. Knowledge of the purposes of education

Other educational scholars in the 1990s provided valuable insights on the importance and relevance of the linguistic and cultural characteristics of a diverse student population in a classroom. Research has been inconclusive about this even though the promotion and development of PCK among content teachers through pre-service and in-service teacher professional development. However, exponents of PCK opine that it has helped re-focus educators' attention to the important role of subject matter in teaching-learning, moving away from the generic approach to teacher education that has dominated the field since the 1970s (Gess-Newsome and Lederman 2001).

As teachers we would need to explore its relevance in our classrooms especially in the context of specific subjects. A sincere effort to understand it and its influence on the learning levels of learners would be worthwhile.



I would like to leave the readers with a question – which of the three teachers according to you has demonstrated PCK in their classroom? Which of them would need support to draw the connect between the content and pedagogy?

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The author is an Assistant Professor at the School of Continuing Education – University Resource Centre at the Azim Premji University, Bengaluru. She works in the field of science education, teacher preparation and curricular material development. She can be reached at <chandrika@azimpremjifoundation.org>.

This is the first of a three-part series.

Design thinking as a teaching framework

Rupangi Sharma

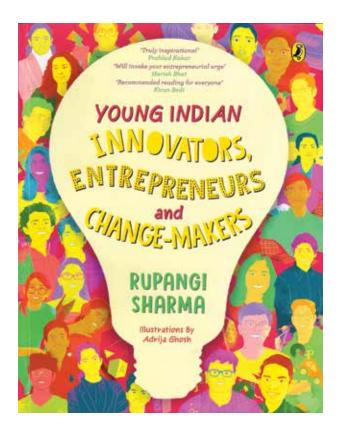
very educator is a design thinker. You solve the problem of quality learning and education which is your product and service. You make millions of decisions to address the problem statement: how can I make learning more enjoyable and effective? Your customer or user is your student. You understand their needs, empathize with the problem areas where they are struggling and then realign your goals in a way that will meet their learning needs. That is what human-centred design is all about.

Based on what your students need to focus on, you then develop lesson plans and modules for your classes and when you teach them you make a mental note of what worked and what didn't. Your lesson plans and modules are *prototypes* that you test when you walk into your classroom. When you realize – sometimes instinctively and other times through students' explicit feedback – that something isn't

working, you go back to the drawing board and then reiterate on your lesson outline. This process repeats itself as a continuum till you have a product that solves your customer's needs.

In other words, design thinking is a cyclical process that starts with empathy. *Empathy* is the ability to understand and share someone else's feelings. As an educator, when you understand what your students need, you empathize with them. And once you step into their shoes, you can define what needs to change, ideate on how you can make that change, create a prototype and test it in the classroom. That's what the design thinking cycle is – an incredibly empowering tool to create impact in any and every field. As a design thinker, you are armed with the right skills and techniques to solve problems. You start to see problems as opportunities for designing solutions.





In a world that is rapidly changing and evolving, that's just the kind of mindset all of us have to develop, especially our students, who are faced with a future that will continue to be riddled with climate change, technological advancements rapidly replacing jobs, and many such complex factors that require the ability to solve difficult problems. They face an unpredictable future, one in which they will need to think creatively, befriend failure and problem-solve to create a better future for themselves.

I joined the field of education after reading Paulo Freire's Pedagogy of the Oppressed, and realizing how much I agree with Freire: students are not containers that teachers fill with their knowledge. The 'sage on the stage' method of teaching is outdated. As someone who is a creative thinker, I always felt betrayed by some parts of the education processes I was exposed to as a student. Why couldn't students be co-creators in their learning journey?

Students should take a more active role in designing their own learning experiences and reflecting on them. Not just that, there is nothing more powerful than peer learning: if that's something that we leverage at a Master's level, why not start from pre-school? Research shows us that you learn when

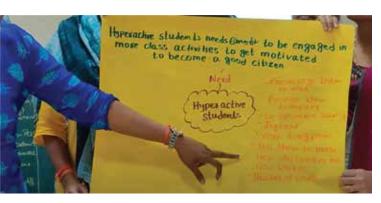
you teach. Add to that, humans are social learners. So, peer learning and peer teaching translate into extraordinary results in the classroom. In my first year of teaching, I saw the impact of small changes like asking my students to stop addressing me when they speak in class, and instead make eye contact with their peers and learning to truly listen to each other. Later on, I utilized processes and technologies that would build a collaborative classroom environment in which students teach and learn from each other.

I also strongly believe that our system of segregating subjects and creating silos in the process of inquiry inhibits a student's naturally playful curiosity. Inquiry necessitates asking questions and encouraging students to question every assumption, belief, and knowledge recorded so far in textbooks. The most impactful innovations, historically, have challenged pre-existing assumptions and experiences, and they have taken root in interdisciplinary forms and evolved over a period of time. Case in point, the computer and internet were military innovations. An innovation in a particular field has spillover effects and it's when like-minded people with the same passion share knowledge and collaborate that industries are spawned.

When I taught innovation and design thinking to students, as an experiment to test their assumptions, I asked them: who is an innovator? Hands shot up as I scribbled their replies on the board: Steve Jobs, Einstein. But they sensed I wasn't satisfied with their answers. I paused and then asked them if they thought they could be innovators? Some of them looked at each other and shrugged their shoulders, puzzled by my question.

Another student said, "But, everything in the world has already been solved!" That's exactly the kind of fallacy that our textbooks teach our students, since they fail to talk about the complexities they will face in the real world. We, as educators are complicit too, as we fail to tell our unsuspecting students that when they walk out of schools, all they will ever be faced with are problems that have not been solved! This is also precisely why we must teach our students design thinking, which apart from its applications in creative careers, is a mindset and framework that cuts across fields.

Design Thinking has powerful contemporary life skills, like creativity and collaboration, embedded in it. Now let's get down to brass tacks. How can educators impart these skills in the classroom? I have



taught scores of students to be design thinkers and innovators as well as teachers to a) role model and teach design thinking (DT) b) design their curriculum using the DT framework. I have also trained CXO (C-suite) level management on design thinking and its application. Let's break down the DT framework:

1. and 2. The first two steps are interlinked, as you begin by empathizing with your user and defining the problem you want to solve for them: The first step in the DT process is to define a problem that you would like to solve. How do you go about doing this? The easiest way to do this is to reflect and think about what kind of problems you see in the communities and groups around you. In my book, Young Innovators, Entrepreneurs and Changemakers, I have profiled the stories of 65 young people between the ages of 7 and 21, who have solved a range of incredibly complex problems, and now run their own social enterprises and businesses to scale their impact.

Their personal experiences or conversations with groups of people around them contributed to their aha moment. For Harshita Arora from Saharanpur, who sold her cryptocurrency app to Redwood City Ventures in Silicon Valley in her teens, and whose payments infrastructure start-up has now received a \$75 million funding – the idea for the former was sparked when she spoke with like-minded friends on online platforms who advised her that there is a massive need for a cryptocurrency app for investors.

So, start by talking to people around you, doing in-depth research online and through surveys, and reflecting on your own experiences to empathize with the end user. More likely than not, if there is something that bothers you (you can also be the user), it is a local problem that might have global applications. Ask your students: what is something you want to change?

- 3. **Ideate on the solution for the problem:** Now that you have defined the problem, you need to come up with a list of ideas to solve it. At this stage, you don't want to limit yourself to a particular idea or scope, so vou can scribble down any and every idea that you have to solve this problem on a chart paper. Don't think about whether you have the skill sets to design that idea, just concentrate on coming up with a long list of ideas that can effectively address the problem vou want to solve.
- 4. Create a prototype: After you've drawn up a long, out-of-the-box list of solutions, as a group start discussing and zeroing down on the one solution you would like to build on. For this solution, you can create a working prototype which is as simple as a role play, a PowerPoint presentation, a situationbased story, or wireframes. Remember, the idea behind prototyping is to rapidly communicate and test it with the group of customers or users for whom you intend to solve the problem.

So, let's say you decided that as a group of educators you want to teach Sustainable Development Goals (SDGs) in the classroom and feel that is the gap that you'd like to solve, you can come up with a lesson plan and role play it with each other for feedback before the final step of testing it out with students.

5. **Test your prototype:** Go to your user and show them the prototype. Your goal at this stage is to ask for feedback. Does the product you have created address their needs? Was there something that you have missed out on? Incorporate the feedback into your product design.

In a nutshell, you and your students have just experienced the human-centric design thinking process that has unlocked miracles and empowered millions of people to design celebrated products, services, and experiences!

The author is the founder & CEO of EFG Learning: Education for Growth, a Mumbai-based education consultancy. She has worked with the Massachusetts Institute of Technology (MIT) Media Lab, Boston and other leading institutions in India and abroad. She was invited to be a panelist on the advisory board to design the ICT in Education Curricula for the Central Institute of Educational Technology (CIET, NCERT). She has recently written Young Indian Innovators, Entrepreneurs and Change-makers (Puffin, 2022). She can be reached at <rupangi@efglearning.com>.

Five ways to combat teacher burnout

Vaidehi Sriram



pm: The twilight hour when most workdays end and people look forward to a warm soak and dinner with their families. Yet, for most teachers, 5 pm is when a new workday begins: marking homework, preparing lesson plans for the next day, or drafting a question paper for the upcoming exams. Indeed, a teacher is always thinking about work. A trip to the local supermarket inspires a lesson on money or the economy; cooking a new dish stirs the potential for an excellent class on proportion or recipe writing!

A teacher is one professional who is always on the job, even outside work hours. This can take a toll on their physical and mental health. Passion alone cannot hold down a teacher to the profession, it's essential to sustain it over a long period. Sadly, everincreasing responsibilities and lack of recognition lead to burnout from which many teachers do not recover.

At the onset of the COVID-19 pandemic, I went through the same despondent state, where I started feeling overwhelmed and was completely indifferent to my work. I was showing the classic signs of burnout, defined as a psychological syndrome emerging as a prolonged response to chronic interpersonal stressors on the job (Christina Maslach and Michael P Leiter). It was hard to summon up my usual enthusiasm and none of my ideas felt worthwhile. Despite my love for the education field, I was dreaming of being far away from the classroom! However, a few activities that I accidentally stumbled upon during that period helped me tide through. While I am still not there as yet, I can see a little of the excitement from my early years of teaching come back.

Here are a few things I did which helped me and I hope they will prove to be worthwhile for other teachers too.

Become a student

During those days of gloom, I signed up for a short course on Coursera, just to take my mind off my own classes. The role reversal helped me relax and proved to be beneficial. Even if it is not a formal degree, just a few hours of learning something new can renew your zest for life, and who knows, it may even be handy for a lesson someday! Explore sites like Udemy and Coursera for enriching classes, where you can forget being the responsible one and just focus on yourself.

Change up your lesson

After years and years of teaching the same concept repeatedly, we all fall into a set pattern. I realized that I had been using the same introductory document and the same set of exercises for over three years! It was time to look for new resources and



in doing so, I felt refreshed too. Even if the textbook is the same, finding new material and maybe just one new exercise/activity goes a long way. For example, I don't usually use bodily humor in my classes, but I decided to try. I still am not good at it, however, the change worked wonders, both for my students and myself.

Put your chores on hold

Teachers are notorious for biting off more than they can chew! After a gruelling day of work, we also want an organized wardrobe or a sparkling kitchen. This only adds to the mounting pressure. It is okay to put these chores on hold and just take a walk. I also read a few books for pleasure, with no agenda, even as the pile of unfolded clothes around me grew! Trust me, nothing major happened. I still went to work the next day, we still ate our regular meals and things were normal. It is important to cut yourself some slack and do things that make you happy.

Find shortcuts

Teachers hold their students to high standards, which is crucial for their development. They do the same for themselves, hesitant to turn in less-than-perfect work even at the cost of their health. I strongly recommend having a few ready-made lessons for those days of low energy, even if they are not perfect. A worksheet downloaded from the Internet, a pre-recorded class, a borrowed PowerPoint presentation or even assigning group work – nothing is wrong! I keep an emergency

folder for this purpose and it has bailed me out on so many occasions.

Teachers are not paid by the minute

Personally, this has been a tough lesson for me to learn. I always believed that every minute of my class must be accounted for with a learning objective attached to it. I wanted to ensure value for every second of my teaching time. This approach often undermines the teaching or learning that happens when no one is looking. A child that sees a teacher comforting a friend, or a teacher that allows children to write their answers sacrificing class time – these are extraordinary moments, impossible in a class where every minute is accounted for. It is okay to send the students to the playground once in a while or to close class five minutes early and allow them to chat! This will also allow the teacher to gather his/her thoughts, allowing for more mindfulness.

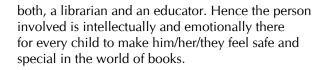
I sincerely hope these tips work for you too and help you combat this insidious malaise that grips teachers at least once in their careers. Teachers create the future and taking care of themselves is the biggest way they can contribute to the well-being of the upcoming generations.

The author is a teacher and mentor who is extremely passionate about pedagogy. She enjoys long conversations, writing and music. She can be reached at <alearninghut@gmail.com> and runs her own website at www.alearninghut.com.

Searching for meaning in a school library

Geetanjali Mehra

ne of the major experiences of my life which gave me the opportunity to evolve in many ways was the Library Educators Course at Bookworm in Goa. Library Educator is a word that brings together the responsibilities and knowledge of



During the journey of LEC, I walked through stories and books like never before, feeling that sense of a presence in my mentor and other faculty, as well as in participants. LEC ensured doing a field project which was a real life experience in the library with the children. The objectives of my field project included exploring what it meant to create an ambience in a school library that fosters more engagements for children.

Libraries are the places where people and books come together but one should be seen as reflecting upon the other. I wanted to see a critical shift in children from quiet, docile readers to independent and adventurous readers, readers who are eager to enjoy the text on their own terms and make their own choices and also to encourage non-readers.

I worked on my field project in my school library, (Delhi Public School, Pune), hence my reflections throughout the span concentrated on "how", "what kind of" and "why involve ENGAGEMENTS" to help bring the actual essence of the school library to light for the children and myself.



Rationale

My reasons for attempting this topic in the field project were because of the stirrings of what is possible in a library that the course had evoked in me. I was further supported when I read Emily Ford, who writes,

"Our conversations aren't working because our language isn't working because our day to day thinking is not working. We should be engaging in a different conversation with ourselves and our community of library workers. We should individually and collectively reflect on the question: What do we do and why do we do it?" – (Emily Ford, 2012)

During the journey of the field project I underwent certain reflections which helped me evolve every time as an educator.

My pre-planning and reflection here guided me to be "flexible"

I observed during my first contact of LEC that this was not a usual sail with children in school as it is for a class teacher – a well-disciplined class, a perfect lesson plan, a strict teacher, desks and chairs. It was completely different.

I needed to prepare myself for the class/session before I was there with the children in the library as I did for my regular teaching sessions, but in the library, for a librarian, the challenge can be the "non-readers" who may not respond in the most anticipated way and later may create a havoc in the library "as a setting" and "as a reading place". Hence as a librarian I had to be flexible and have a plan B ready to involve non-readers in a way that leads them to pick up a book and spend quality time with it.

How teaching-learning tools create a difference in library sessions too: Using different storytelling methods and props for sessions depending on the need of the story based on children's interests and needs, lead to a healthy and engaging discussion on the story that can lead to an understanding.

"Understanding is developed through relationships in which the child engages in discussions and dialogue with others." (Edwards 1986, Feeney, Christensen, & Moravick 2006)

Children's own way of selection: Another reflection that struck a chord with me was that children have their own mechanism of selecting books from the shelves but then for that they need to visit the shelves and feel free. Hence, independence to move freely and feel the books was the first pre-requisite for an open library.

Children cannot be contained in boundaries of age groups, and their choice in reading should not be influenced. Although guidance by the librarian does help a child and that is what encourages the importance of "engagements" in a library.

(Unnatural selection: More librarians Are Self-Sensoring, Linda Jacobson).



What I was looking forward to: This led to the reflection on what I am looking forward to in the library in future, children browsing the shelves without a fear of eyes chasing them while they browse the books and children reading and talking about books in deeper ways.

"Browsing information and communication media are the fundamental and pervasive human social activities, central to survival, learning, and understanding, creating, enjoying and interacting. (Rice, McCreadie and Chang 2001, 312)

Ambience and appearance: One other aspect which I observed and tried to work upon for a long-term vibrant library was the ambience and appearance of the library. A comfortable story time corner was created and I observed that children were enjoying the floor arrangements and freedom to sit as per their will to enjoy the reading time.

Reading in a different ambience, nature walk inside the school ground and garden and children choosing a place for themselves to read amongst nature and under trees also helped them choose their place of reading. They seemed to have enjoyed the idea.

Reading can be encouraged from one child to another: Throughout these sessions I observed the keenness for reading aloud. Reading aloud leads to – independent reading, stretches attention span, stimulates imagination, fosters critical thinking skills. (Jim Trelease's The New Read Aloud Handbook).

In a read aloud situation, two texts exist. (Fox Mem. Reading Magic 2001: why reading aloud to our children will change their lives forever).

Group activities: Readers' theatre activities and literature circles which involved more than one/two participants and confident faces stimulated in the children the desire to know the stories and know more books.

"The books that matter in our lives are the books we have discussed". (Lucy Calkins, 2001)

Bookworm, during LEC, had introduced the participants to the idea and importance of **making library cards**.

The idea when brought to children, displayed a sense of ownership, responsibility in them towards the books which they borrowed from the library to read.

How engagements create a bond between the librarian and the student: A conventional library is different from a lively library where the children are able to reach out to the librarian. This reflection answered all my queries and the search for soul in the library was over. It was right there and only needed to be explored through the engagements.

These reflections opened the doors for me to understand the children and work with them in the

ed this book because 48 TEACHER PLUS, JANUARY 2023

library. A board was put up to receive feedback from children so that the engagement could be welcomed from the children's side as well and what they expect in an open library. This gave children a way to express their views. Children were given the independence to browse all the shelves, issue books during examination days and the librarian's engagements with the children opened up opportunities for discussion, learning, listening, and expressing. The library has become a place to be visited and explored for the children.

LEC helped me evolve and understand that children cannot grow in the shadow of life. We should allow them to read the stories they like, ask questions, enjoy the real pleasure of their lives by understanding it better. But if we cannot guide our children to the answers or at least direct them to finding their own answers then "are we educators"? or "are we just information givers"?

LEC helped me – a teacher – to think in a way for the children, for the society as a whole, for my growth from an individual to a facilitator, to a holistic educator in the library.

LEC, I can assure is making and guiding educators so that they are there for the children, for the society at large and standing tall with their vision.

I am a proud teacher librarian.

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The author is a Lead Teacher (Read Programme) at Delhi Public school, Pune. Her participation in Library Educators Course at Bookworm, Goa helped her evolve as a teacher librarian who designs activities to encourage children to connect themselves with books and reading for pleasure. She can be reached at

<geetanjali.mehradpspune@gmail.com>.



Timira

n my last article I wrote about the importance of 'art as a pathway to inclusion' focusing primarily on visual art and the ease with which teachers can bring it into classrooms with the knowledge that art surpasses language, intellect, ability, gender, age – it holds space for all. This time I'd like to shift focus to the larger idea of the arts (covering various fields like music, movement, theatre, cinema, literature, photography, etc.), and its fundamental role in developing a language of inclusivity, with an added focus on the impact of the arts on teachers.

Teaching is a creative act – celebrating multiple perspectives, constantly changing approaches, creative problem solving, improvising and enabling social-emotional well-being, amongst others, are all skills that the arts and teaching share and are approaches that are innately inclusive in nature. It is crucial for teachers to go through training workshops that are designed around arts-based engagements and play, where they experience learning through collaboration, the freedom to explore, the joy of discovery, the importance of communication, playfulness, improvisation and authenticity and a sense of **equity** and **inclusiveness**. This is a glimpse into the unique vocabulary that the arts offer and teachers must experience it to know it, use it, and eventually make it their own.

It is through this vocabulary that teachers can find freedom from the prescriptively set boundaries of teaching methodologies and discover new approaches to engage with children, increasing the agency in their learning processes.

I facilitate training workshops that are immersed in arts-based engagements for teachers in various schools across the country, with the objective of having them experience the arts, understand the core essence of these engagements, and finally realize the creative potential that teaching has. The most empowering facet of these workshops has been when teachers begin to draw parallels between an artist's approach to creating art and a teacher's approach to creating an environment of learning. It is a novel idea that shifts the role of a teacher from the direct action of 'teaching or delivering content'

"I used to think education was all about teaching and learning, restricted to the curriculum provided. But now, I see education is all about exploration, and exploration cannot be framed in a curriculum. As educators it is important that we don't restrict ourselves to a particular boundary."

- Rex D'Silva, teacher, math and biology

"As a special educator, I used to think that the main purpose of education is to make students independent in day-to-day life and develop their social skills, communication skills, and motor skills. Now I think the purpose of education is to make students self-aware, mindful, and respectful individuals." – Minal Kadam, Special Educator

to a larger overview of education which requires 'creating an environment of learning'. This brings in an immediate sense of ownership and enables autonomy in a teacher's pedagogical approach. Such experiences also make room for developing deep reflective practices where teachers pause to review their approach to teaching and contemplate upon larger ideas like the purpose of education.

Here are some responses of teachers from Akshara High School (ICSE), Mumbai, where there has been ongoing arts-based training for teachers for several years. These responses were part of an annual self-review assessment to answer the question "What is the purpose of education – what I used to think... what I think now".

So how do teachers move into these spaces of reflection, what are the visible changes in their teaching approaches and what kind of arts processes enable this journey? The practice of reflection is an innate part of experiencing any artistic engagement; it is the very purpose of the arts to make you see, think, feel, and wonder. For example, when a group of teachers create a piece of art together, perhaps a mural or a sculpture that represents something, the obvious purpose of the activity is to have teachers reflect upon their experience and articulate it. These experiences can range from understanding the pedagogical value of collaborative work, creative thought, and freedom to more complex social ideas of the importance of navigating varied temperaments, opinions and abilities with care and kindness. Theatre exercises, especially those based on Augusto Boal's Theatre of the Oppressed, are designed to

"I used to think that with an education I can get a job and earn a livelihood. Now...I believe that education helps you find your true passion and trains you to make well-informed decisions, which is extremely important in life."

- Heena Rajpara, teacher, history and English





have teachers think about the innate power dynamic that exists between the teacher and the student. Once teachers physically experience their position of power, they truly comprehend the problematic 'banking system' of education we follow, where the student is treated as an empty vessel that must be filled with knowledge. They realize how important it is for teachers to change their approach in order to have students be treated as co-creators of knowledge. Another aspect that is crucial for effective arts experiences as well as teaching and learning is moments of silence or stillness. Pausing after asking a question so that all students take time to think of their own individual response, or better still have each student write their response down before sharing them, creates room for reasoning, deeper thinking, reflective thought and moves individuals from reacting to responding. Experiencing the joy of freedom that the arts provides allows teachers to shift their instructions from being prescriptive to being more open and exploratory.

Having teachers sing, dance, draw, paint, and use their bodies to communicate breaks the rigidity and firmness that has formed over several years of

"For me, earlier, education was about imparting textual knowledge with may be added facts but now I know that knowledge is beyond that and the foundation years need to be more about experiencing, exploring and then deriving knowledge."

- **Jital Ganatra**, teacher, environmental studies

working within hardened structures. It is imperative for teachers to be able to break out of set frameworks of education and bring about new pedagogical approaches which are autonomous, plural, and sustainable in nature. Committing to this approach to teaching pushes educational institutes to review the philosophies and ethics they stand by. The role of empathy in education, importance of non-academic skills, inclusivity in a school space, are values that are innate to the arts and must find their place in the core values of educational institutes.

My long-term experience of driving educational goals for an institution, developing arts-based curriculum across schools and as a consultant for designing teacher training modules has affirmed my belief that the teacher plays the most important role in executing a curriculum and an educational philosophy. It is imperative for them to develop a disposition where they see themselves as evergrowing and developing beings who are living life creatively to contribute to life itself. Thus, it must be established that an ongoing relationship with the arts is imperative, especially for teachers, to be able to create an inclusive, sensitive, and nurturing environment of learning and infuse a child's life with creativity and the arts, thereby fostering a life-long and meaningful relationship with it.

The author is an arts-based therapist, educator and children's author. She has been working with children from different backgrounds for the past 15 years and is an advocate of 'inclusive education'. She is currently the Executive Director of an inclusive not-for-profit ICSE school in Mumbai. She can be reached at <timira@gmail.com>.

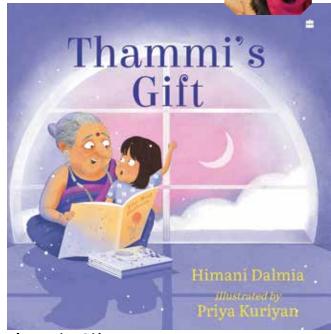
To a librarian, with love

Chintan Girish Modi

t is rare to find a children's book that addresses both grief and joy with sincerity and without over-simplification. Thammi's Gift, a book written by Himani Dalmia and illustrated by Priya Kuriyan, made a place in my heart as soon as I read it. Published by HarperCollins India, it draws inspiration from the life of librarian Bandana Sen who was the author's mother-in-law.

I learnt from this book that Sen, who passed away in 2018, began her career working at the American International School in Kolkata. She later managed

libraries at the American Embassy School in New Delhi for almost 40 years, and moved on to set up libraries at Pathways School across the National Capital Region (NCR). She did this for 12 years.



Thammi's Gift

Author: Himani Dalmia Illustrator: Priya Kuriyan Publisher: HarperCollins India

Price: Rs. 499

Number of Pages: 40

When Sen passed away, the author and her husband - Akash - were shattered. They wondered how their daughters - Devika and Yamini - would cope with the loss. One of them was four years old, and the other was two and a half when their beloved grandmother died. Dalmia decided to write a book in memory of her mother-in-law. She writes, "One of the starkest reminders of our bereavement was the library in our nursery – a vast and gorgeous collection that was actually larger than anything I could have dreamed of on my own".

Thammi's Gift is a celebration of Sen's life, the joys of reading and the bond between grandparents and grandchildren. Dalmia's daughter Devika is a character in the book, along with Sen. The girl dreams of her grandmother and they read together. Thammi tells her, "When you need me, I will be here. To play with you, to talk to you, to do anything you like". Thammi even takes Devika to the greatest library in the galaxy. It's on the moon.

The book grew out of an article that Dalmia wrote for the "Publishing and the Pandemic" series curated by Kanishka Gupta for Scroll.in. Titled "The home library my mother-in-law built for her grandchildren has been their greatest lockdown joy," it was published in 2020.

Thammi's Gift offers children an opportunity to honour their departed loved ones in creative ways. They may not have had grandparents who left behind a legacy of over 1500 books like Sen did but they must have other kinds of inheritances to cherish - stories, memories, toys, clothes, photographs, recipes, etc. It is also a useful resource for adults who are so overwhelmed with their own feelings that they do not know how to support children.

The book would not be as impactful without the captivating illustrations - Thammi reading to her pregnant daughter-in-law and new-born granddaughter, Devika riding a unicorn, Thammi performing a puppet show for Devika, Thammi ferrying Devika across the night sky on her back,

adults and children engrossed in books at the greatest library in the galaxy, and more.

Thammi's Gift also addresses the fear that children feel when they are about to start school. Parents often scold children and rush them into embracing this milestone but things are not as easy as they seem to be. Children have to cope with uncertainty when they step into a new space, and do not have familiar faces to see or arms to run into for hugs. Ms Varma, one of the characters in the book, is a teacher who understands this and goes the extra mile to make children feel comfortable. This book has much to offer, not only to children but also adults.

We bring you an interview with Himani Dalmia.

Could you tell us about your first interaction with Bandana Sen and what struck you? What was her presence like in a library? It would be great to hear some anecdotes.

My husband – Akash – and I knew each other in high school. I first met his mother at their home when I was 15. She was always visually striking with her stately, museum-quality silver jewellery and signature handloom saris. She had a direct and no-nonsense way of speaking, getting to the point and never really sugar-coating her words. I visited the American Embassy School library in Delhi a few months later and then quite a few times during my undergrad studies in English Literature at St Stephen's College. I found critical essays and other resources at their high school library for my studies at the college-level. Her presence in the library was of calm ownership. The library was like an extension of her. The staff, teachers, children, parents all knew her, respected her and seemed to buzz around her.

How have her work and way of thinking informed your approach to reading and parenting?

What she and I had in common from the very beginning was a love for literature and the arts. We would often talk about books or classical music or art. She had an extremely busy social and cultural calendar, attending every recital, exhibition, reading or festival of note in the city. It was inspiring to me as a young woman coming into my own and trying to balance the pulls and pushes of careers, family, social, and intellectual life. One could not help but feel intellectually alive and stimulated in her presence.

I think that her greatest gift to me as a reader was definitely the children's literature that she introduced me to when I became a mother. I would probably

not have picked up children's picture books on my own but what a loss that would have been! This genre is high literature. The authors and illustrators are masters of their craft. I don't think I will ever outgrow them!

Where parenting is concerned, she supported and nurtured the path that my husband and I were on, while never intruding on our approach with any conflicting views. She was absolutely smitten by her grandchildren, often saying, "I didn't know I could fall in love in my seventies but then I became a grandmother". My husband and I are very handson, high touch, "attachment" parents and, given that she was so obsessed with her grandchildren, she encouraged our extremely responsive style. I read parenting books and articles by the dozen and I would often share snippets or full articles with her. She would always read with interest, share her views, discuss with me. My approach has always been to read a lot and inform myself about the art and science of parenting, and thereafter follow my instincts, which is something that she appreciated. I felt supported and encouraged in this by her.

Of course, her greatest contribution remains the reading culture and legacy she created for our daughters - Devika and Yamini - which is irreplaceable and unparalleled in its power.

Would you mind describing how the article for Scroll in transformed into this book? How did your agent Kanishka Gupta and Tina Narang - your editor at HarperCollins India – help you craft this book into its present form?

I was surprised and delighted by the response that the Scroll.in article on our home library received within my parenting networks, online parenting communities, and the literary fraternity at large. The idea of creating a picture book around it was mine. When I pitched it to Kanishka, he loved it and was encouraging. Tina understood the crux of the idea - the story's emotional core, the power of the library trope, and the fascinating character Thammi's persona would create. Her incisive editorial comments were in sync with my thought process.

Before Thammi's Gift, you wrote the novel Life is Perfect and co-wrote a parenting guide called Sleeping Like a Baby with Neha Bhatt. How different was the writing process when children became your target audience? What challenges did you face?

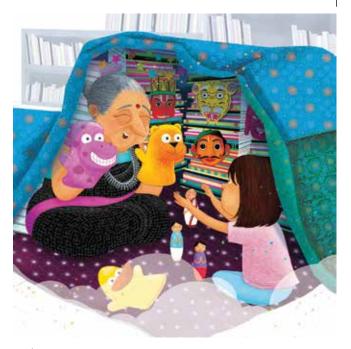
It was different because, with children, the word count has to be low. One has to communicate

simultaneously through text and pictures. I was fortunate to have a partner as skilled and experienced as Priya Kuriyan. I have always loved her work, and she was the first person who came to mind when I thought of an illustrator. Kanishka and Tina both agreed from the get go and all three of us were right. Priya has wrought magic with her illustrations, capturing Thammi's essence perfectly and creating a world of wonder for little readers. I was also able to work through *Thammi's Gift* because I imagined my children as the audience.

What did Devika and Yamini think of this book? Did you incorporate their feedback?

We actually didn't reveal it to Devika until we received a fairly complete draft with illustrations and to Yamini until after publication. We wanted them to see the final product. This book is a personal story for them and we felt they wouldn't respond to it from an objective, literary perspective and hence did not really seek their feedback. They enjoy it but also take it in their stride, as innocent kids take most things! Devika is often exasperated about explaining to her schoolmates that she did not actually take a trip to the moon!

What was it like to work with Priya? Which books of hers have you enjoyed reading with your children? Did you and Tina have a brief for her? Was there an art director working with the three of you? Did Priya and Bandana know each other? Priya's illustrations always stood out to me amongst the books in our collection. My kids and I have really enjoyed books like Princess Easy Pleasy, Ammachi's



Glasses, and Zakir and his Tabla, amongst others that she has illustrated. Kanishka introduced me to Priya and it turned out that she had met and known Thammi. She was enthusiastic about this book project, and it was an honour and a privilege that she agreed to join hands with me on it.

Working with Priya was like a dream. I included an illustration brief with every page of text, but I also let her know that she could use that as a starting point and then had complete artistic license to imagine the story as she wished. I also told her that, the only person I wished to be "accurate" was Thammi – from her trademark saris and silver jewellery, down to her LeSportsac bag and Birkenstock shoes. Everyone else could be universal characters or depicted as she imagined them. I provided lots of pictures of Thammi in different situations. I gave very little feedback on the work that she sent me (as it was always pretty much perfect). She was agreeable and prompt about accommodating every request. We understood each other seamlessly.

Many parents are reluctant to broach the subject of death and grief with children because they think that children are not mature enough to talk about these things. What would you tell them based on your experience as a parent, and what you have observed?

I completely understand this as I remember my husband and I grappling with this question of how to explain to Devika what had happened when her Thammi passed, and also on how to introduce them to difficult subjects even today. However, based on my experience, I would say the following three things to parents:

- a. Death is a part of life and our children have either already seen it (at close or distant quarters) or will see it soon.
- b. It's a good idea to be one step ahead of our kids where difficult subjects are concerned and also for them to hear about it from their parents versus from someone else, as they then hear about it from a safely connected space and also according to the family's cultural values.
- c. Children take matters like death in their stride. If personal, they will feel pain but they process it more easily and faster than adults. Making them feel seen and heard, while validating, acknowledging and labelling their emotions, is the key to making them work through these big, mysterious feelings. If theoretical and not personal, children usually don't even bat an eyelid on the subject.

In my experience of reading Thammi's Gift to different groups of children, I have found that children have hardly noticed the death and have been more fascinated by the other elements in the story. Yet when I've asked a leading question, they have opened up and poured out their feelings about a loss or difficult transition they have experienced. Teachers have come to me and said that they were amazed to see so-and-so speak about her or his recent loss as they have found the child to be reserved and repressed about it in the past. Parents have told me about how their children have connected Thammi's death with the passing of their near or distant relatives, drawn pictures of their relatives "as stars" like Thammi. So, I think the book has encouraged conversation and has had a healing effect on children.

The book is dedicated to Mahima Kaur, Dalbir Kaur Madan and Neil Jarial. How did you get to know them? What role have they played in your life as a reader and parent?

Mahima Kaur is the founder of Dreaming Child Preschool in South Delhi. It is a progressive preschool that both my children have attended from pre-nursery to kindergarten, entering "big school" only at grade 1. My husband and I love the Dreaming Child philosophy of being child-led, with a playbased curriculum, and a gentle, seamless transition from home to school. They also have a strong focus on books and reading, with a charming "Reader's Den" in their exquisitely designed space and pattern of building activities around the central theme of a story. It is very much Mahima's vision. My husband and I often wonder if we would have ended up home-schooling or unschooling if we had not found Dreaming Child, which was the only school we felt was a perfect fit with our parenting style. As such, Dreaming Child has been a home away from home for them, with Mahima and her fabulous teachers as our partners in raising our kids.

Dalbir Kaur Madan is the founder of One Up Library in Vasant Vihar, the only private library for children in Delhi that I know of. My kids have been going there since their babyhood. My mother-in-law was a mentor to Dalbir and we feel as though she is continuing her legacy for our kids. Dalbir also instituted the Bandana Sen Library Awards, the firstof-its-kind award for school libraries and librarians across the country.

Neil Jarial is a storyteller par excellence. My kids have been attending her magical storytelling classes

since they were toddlers. Neil weaves music, theatre, art and craft with books and stories, creating a seamless creative and sensory experience for little ones. We are selective about the classes we take our kids to as we don't like to overschedule, but Neil's are one of the handful that we have made an exception for.

Several book recommendations are tucked into Thammi's Gift including Up and Down by Oliver Jeffers, Wolf Won't Bite by Emily Gravett, The Detective Dog by Julia Donaldson, Kafka and the Doll by Larissa Theule, Zakir and his Tabla by Sandhya Rao. Could you tell us the story behind this choice? Are these Bandana's favourite books? Thank you for noticing! We wanted this to be another layer of interaction with the book for children and families who do already read a lot. There are book covers and also a lot of lurking book characters! I was very specific about some of the books and characters mentioned because they were thematically relevant like Come to School too, Blue Kangaroo by Emma Chichester Clark (a book about starting school), The Detective Dog by Julia Donaldson and the Library Lion by Michelle Knudsen and Kevin Hawkes and the reference to the Magician's Hat by Malcolm Mitchell in the last bedtime reading scene (all three celebrate libraries). Zakir and his Tabla is there because it's another book illustrated by Priya that we thoroughly enjoyed; Kafka and the Doll because, apart from celebrating a literary figure, it is a picture book for a slightly older age (suitable for a five-year-old like Devika is by the end of the book). Several pages have other famous book characters from The Cat in the Hat by Dr. Seuss, Elmer the Patchwork Elephant by David McKee and The Gruffalo by Julia Donaldson floating around, along with children's books by leading authors of the day like Oliver Jeffers and Emily Gravett. I mentioned some books, characters and authors specifically to Priya; some she decided on her own, understanding the intention. We felt that children who know would enjoy spotting them and families looking for recommendations will find some. At the end of the day, this book celebrates children's books and encourages a breadth of reading. It exists

The author is a writer, journalist and educator based in Mumbai who can be reached at <chintan.writing@gmail.com > or @chintanwriting on Twitter.

within an ecosystem of books, so it refers to it and

plays with it.

Growing up with a library movement

Jeenamsi Ngadong with Keselo Tayang, Anjangmai Mam, Bethem Marai and Solina Kambrai

"'Library' - the word might create an impression of a boring, quiet place with dusty books. However in June 2007, as a 10-year-old student in the mountains, I didn't even have that image, because like the other schools in our small town, we had no library, and books to us meant only textbooks. Yet, only in a few years, I would not only discover the wonder that the word is, but also become an ardent library-activist travelling from Delhi to Kaho, the last village on the China border spreading the 'Joy of reading," says Abhinav Dwivedi, a medical student now in UP, and one among the young volunteers who grew up with the joy of reading movement in Arunachal Pradesh.

his is the story of the Lohit Youth libraries, which stirred up a gentle socio-educational wave across Arunachal Pradesh and has now won national awards and recognition, including a Padma Shri for our founder-coordinator! We, among the senior-most group of activists of the movement, would like to share a brief account of this evolution. All of us are first generation girlstudents from the Mishmi tribal community.

Why was a youth library movement needed in Arunachal?

Arunachal has 26 major tribal communities, each with its own language, and around 100 dialects, none of which has a script and are mostly unintelligible. In 1972, English became the medium of instruction in schools. But Hindi remains the lingua-franca! It is only recently that the government has started encouraging communities to develop scripts for our languages and prepare textbooks for teaching in Arunachali languages.

Uncle Moosa, the founder-coordinator of the Lohit Youth Library Network, who has spent over four decades working with Arunachali youth, lists the obstacles in developing a reading culture among the youth here:

"Himalayan States like Arunachal have multiple challenges: thinly populated and scattered villages, poor road connectivity, lack of infrastructure like power supply, limited access to schools, reading resources and internet services, etc. After the introduction of Sarva Siksha Abhiyan (SSA) in 2002, there was a complete change in our school system. SSA stressed on more



Senior most volunteers and mentors of the Lohit Youth Libraries, June 2019 at the inauguration of the Medo Youth Library, Lohit District.



Young Youth Library activists performing at the AWIC International Conference on Children's Libraries, New Delhi, February 2010.



English siblings Edward & Alice Shipsey, volunteers at Lathao Youth Library, Namsai District, Oct. 2009.

schools in villages, overlooking the aspect of whether a school could be viable in such remote areas. Thus most government residential schools were closed and a string of ill-equipped day-scholar government schools and private residential schools sprung up across the state. As expected, there was a dearth of adequate teachers proficient in English, willing to work in remote schools.

My long association with Arunachali students made me realize that the only way to counter such an adverse learning environment, is to somehow find innovative ways to build a learning culture. That's how the youth library movement was born in 2014."

How the youth library movement grew

Fortunately, many enlightened administrators came to our support, like our founder-patron Prashant Lokhande, a senior IAS officer. Our movement now comprises volunteers, wellwishers, teachers, parents and patrons across the country, and even abroad, with the local government agencies. Generally, in rural areas, girls' education usually suffers. We are very fortunate that most of the volunteers of the Lohit Youth library network have been girls. Through them, parents could understand the importance of reading and how reading can transform the lives of rural tribal girls.



Its Homecoming! Prashant Lokhande IAS, founder patron of Bamboosa Library back again at the Library he founded! With volunteers on March 11, 2021, after a gap of 14

Salient features of the Lohit youth library network:1

Our youth library movement is entirely different from similar initiatives. Here is why:

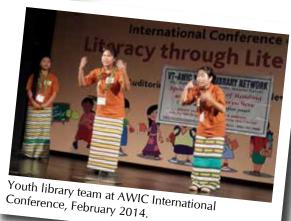
- 1. All members work on their own without any compulsion or remuneration.
- 2. Decentralized network with no central authority. Each library is independent and works as per the local situation. As Uncle Moosa likes to say, "The coordinator does not run the movement. He runs with the movement!"
- 3. Our well-wishers engineers, doctors, writers, environmentalists, theatre artists, film makers² and even senior IAS officers, support us with time, money, resources, and technical knowledge.



Volunteers doing a skit in Mishmi language on opium addiction, October 2013.

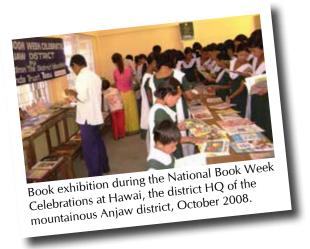


AIR Tezu in 2021.



- 4. We target the reading-deprived by conducting reading campaigns in the remotest of villages!
- 5. Even though our languages don't have scripts, we try to create a literary environment through skits³ and radio talks⁵ in our languages.

Reading campaigns - how and why? - Keselo Tayang, an ace storyteller answers. 'When children can't reach the books, the books should reach the children!' That's our motto! Hence reading campaigns became our USP. We



do poetry, drama, and storytelling sessions and train readers. Campaigns also include mini-book exhibitions and awareness sessions⁴ on environmental, literary, and social issues such as opium addiction.

When libraries can't reach readers in tiny villages... Anjangmai Mam, a dedicated volunteer, points a way forward

For our thinly scattered population, a normal library system is not suitable. So we felt, why not let our volunteers set up a 'vacation mini-library' in their villages? Now we have 10 mini vacation libraries running for the last 10 years! Two of these mini-libraries have grown into full-fledged ones, like the Medo Youth Library, with support from our patrons.

Have youth libraries helped us in our education and life? Our team mate Bethem Marai answers...

I come from a remote village where there is no proper schooling, electricity, or internet. Being a first generation learner, I had reached 6th standard but was not able to read. APNE Library gave me a different view of learning. I started taking part in library programmes and there was no looking back.

We got many unique opportunities: Our senior volunteer Keselo Tayang got a chance to meet Dr.APJ Abdul Kalam in 2010, when she was just in 5th standard! Many of us could publish articles and short stories in various magazines. We hadn't even reached class 10 when our own writings came out as an anthology called "Mishmi Land Musings"!



Library volunteers with Dr. Kalam during the AWIC International Conference, New Delhi, February 2010.

Youth library movement – what is its future? Solina Kambrai shares her thoughts...

The library movement's main objective is to promote the joy of reading among the youth⁶. Once trained, the youth themselves become 'activists' and pass the joy onto others, creating new readers and volunteers.

Swami Vivekananda says, "All the wealth in the world cannot help a little Indian village, if people are not taught to help themselves". Our movement espouses this philosophy and can be a model not only for Arunachal but the entire nation.

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Jeenamsi Ngadong and her group are first generation tribal girls from Wakro circle in eastern Arunachal Pradesh, who have emerged themselves as senior youth library volunteers & reader-activists, with over a decade of reading campaign experiences. They have done their post graduation from Coimbatore, except Bethem Marai, who did her post graduation in Social Work from Itanagar. Jeenamsi, an MA in English is keenly interested in books and loves training students in poem recitation. Keselo is an ace story teller and an expert trainer of adolescents. Bethem, a caring mentor of readers at youth libraries, is a dynamic speaker and vlogger. Anjangmai loves training young readers in poem recitation and book reading skills. Solina, an M.Sc Botany, is a gifted dancer and participates frequently in reading campaigns.



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